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## ABSTRACT

This 1994 directory of project abstracts provides an overview of the ongoing efforts of researchers supported by the Division of Innovation and Development of the U.S. Office of Special Education Programs. Abstracts of 236 projects are separated into 10 sections according to the primary focus of the study. The 10 sections are: (1) assessment and evaluation; (2) cultural differences; (3) infants, young children, and families; (4) instructional effectiveness, models, and learning; (5) policy, restructuring, and service delivery issues; (6) secondary education and postsecondary outcomes; (7) serious emotional disturbance and behavioral disorders; (8) severe disabilities; (9) teacher training, retention, and supply/demand; and (10) technology and software. The information for each project includes principal investigator name and address, grant number, beginning and ending date, purpose, method, and anticipated products. Access to the abstracts is provided by indices for principal investigator, institution, subject, state, and competition. (JDD)

ED 374 611

# Research in the Education of Individuals with Disabilities

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## Innovation and Development in Special Education

Directory of Current Projects  
1994 Edition

U.S. Department of Education  
Office of Special Education Programs  
The Division of Innovation and Development

EC 303333

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# **Research in the Education of Individuals with Disabilities**

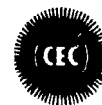
## **Innovation and Development in Special Education Directory of Current Projects 1994 Edition**

**Anmarie Kallas  
Editor**

**U.S. Department of Education  
Office of Special Education Programs  
The Division of Innovation and Development**

Prepared by:  
The ERIC/OSEP Special Project  
ERIC Clearinghouse on Disabilities and Gifted Education  
The Council for Exceptional Children

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## ***PREFACE***

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To be meaningful, research must respond to the needs of the community it is meant to serve, and the focus of research must evolve as that community's priorities change. The Division of Innovation and Development (DID), the research and development arm of the Office of Special Education Programs (OSEP), has taken up this challenge by supporting closer relationships between research and practice, exchanging findings and needs with broader audiences, encouraging the development of projects in key areas, and providing direct service to researchers and users.

The work and achievements of DID have helped pioneer many common practices found in classrooms today. For example, the Division was one of the first agencies to fund research on cooperative learning and on the effects of early childhood intervention. The Division also has funded seminal work in reciprocal teaching, direct instruction, peer tutoring, learning strategies, and behavioral interventions that have led to dozens of strategies with greater success and enhanced efficiencies for children and youth with disabilities. In fact, the Division's R&D efforts have touched on virtually every aspect of teaching and learning, from exploring the influences of parents and families on learning to teacher planning; from psychosocial development to outcomes-based learning; and from understanding how to best use technology in classrooms to exploring how students use their own language and communication systems to learn. The Division has taken on many of the biggest research challenges facing education today, with results that continue to reshape how educators, policymakers, and the public think about teaching and learning.

DID is responsible for four discretionary programs, funded at nearly \$40 million in fiscal year 1994 and authorized under the Individuals with Disabilities Education Act (IDEA):

Research (\$20.6 million);  
Technology, Educational Media, and Materials (\$10.8 million);  
Serious Emotional Disturbance (\$4.1 million); and  
Special Studies (\$3.9 million).

Over the last decade, DID has supported ongoing changes in special and general education and efforts to support knowledge production and use as well as knowledge access. DID has moved toward an agenda that focuses on results—achieving better outcomes for children and youth with disabilities. This transformation was motivated by a commitment of DID leadership to assure that the research knowledge in which they have heavily invested is accessed and used by practitioners and policymakers to improve their practices, programs, and policies. This directory of project abstracts will provide an overview of the ongoing efforts of researchers supported by DID who are helping to advance DID's results-oriented mission.

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# INTRODUCTION

The 1994 edition of *Innovation and Development in Special Education: Directory of Current Projects* (the previous edition was entitled *Research in Special Education: Directory of Current Projects*) provides basic information on all research projects funded by the Division of Innovation and Development, Office of Special Education Programs, U.S. Department of Education, through September 1993.

In this edition of the directory you will find abstracts of 236 projects separated into 10 sections according to the primary focus of the study. The 10 sections include: Assessment and Evaluation; Cultural Differences; Infants, Young Children, and Families; Instructional Effectiveness, Models, and Learning; Policy, Restructuring, and Service Delivery Issues; Secondary Education and Postsecondary Outcomes; Serious Emotional Disturbance and Behavioral Disorders; Severe Disabilities; Teacher Training, Retention, and Supply and Demand; and Technology and Software.

The appendices in the back of the directory include Principal Investigator, Institution, Subject, State, and Competition indices to facilitate finding specific information. The Principal Investigator, Institution, and State indices include page numbers for each occurrence of the name of an investigator, institution, or state. The Competition index lists the title of each competition and each occurrence of a project funded under that competition. Each project appears once in the subject index according to the secondary or tertiary focus of the project. For example, a project placed in Section 5: Policy, Restructuring, and Service Delivery Issues, which is developing a systemic restructuring effort in a high school, is cross-referenced in the Subject Index under Secondary Education.

The information in this directory is taken directly from OSEP's in-house database of research grants. If any errors are found in this material, they should be reported to the ERIC/OSEP Special Project so that the database, and future editions of this directory, will be as accurate as possible.

Anmarie Kallas  
Editor



# ***SECTION 1:***

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## ***ASSESSMENT AND EVALUATION***

## Research on the Self-Determination of Individuals with Disabilities

**PRINCIPAL INVESTIGATOR:**  
Abery, Brian  
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Institute on Community Integration  
102 Pattee Hall  
150 Pillsbury Drive, S.E.  
Minneapolis, MN 55455  
612-625-5592

GRANT NUMBER: H023J20001  
BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### ABSTRACT

**PURPOSE:** This project will conduct a 2-year program of research to develop conceptual frameworks to better understand the competencies and processes of self-determination, and to generate and field-test instrumentation designed to assess the extent to which students possess the skills and opportunities necessary for self-determination and for personal control over their lives.

**METHOD:** The project will utilize a number of qualitative and quantitative research strategies grounded in both a participatory action research paradigm as well as psychometric theory to: (1) conduct a comprehensive research synthesis on self-determination; (2) develop a computerized database of the self-determination literature that will be made available to parties interested in self-determination; (3) develop conceptual models of self-determination through a participatory planning and decision-making approach; (4) identify the basic competencies and skills necessary for the exercise of self-determination; (5) design and validate instrumentation to assess the competencies and skills necessary for self-determination, the opportunities the individual has to exert personal control, and the degree to which he or she exercises self-determination; (6) establish the social validity and usefulness of the models and evaluation instruments with consumers; and (7) use field data to conduct a series of exploratory and confirmatory factor analyses in order to validate the conceptual frameworks developed.

**ANTICIPATED PRODUCTS:** Project products will include: (a) a synthesis of the existing research; (b) a computerized database of self-determination literature; (c) development of conceptual models incorporating participatory planning and decision-making approaches; (d) identification of basic skills and competencies associated with self-determination; (e) design and validation of appropriate assessment tools; (f) confirmation of the social validity and usefulness of the conceptual models and the assessment approaches; and (g) field tests. Dissemination activities will be conducted at multiple points during the project to make useful information available to professionals and consumers and to publicize the use and utility of the assessment methods.

## **Exploring the Relationship Between Curriculum-Based Measurement and Teacher Effectiveness**

### **PRINCIPAL INVESTIGATOR:**

Allinder, Rose M.  
University of Nebraska -- Lincoln  
303 Administration Building  
Lincoln, NE 68583-0430  
402-472-5457

GRANT NUMBER: H023C30111

BEGINNING DATE: 4/01/93

ENDING DATE: 3/30/96

### **ABSTRACT**

**PURPOSE:** This project will examine the effects of curriculum-based measurement (CBM) on teacher effectiveness variables through a series of three studies.

**METHOD:** Each of the substudies planned will include 30 special education resource teachers assigned randomly to treatment and control groups, plus 60 children with mild disabilities. The first study will investigate the effects of CBM on teacher characteristics and school organizational factors important for teacher effectiveness. The second study will explore the effects of CBM on pre- and postinstructional variables which are related to teacher effectiveness. The third study will examine effects of CBM on teachers' behaviors while delivering instruction.

**ANTICIPATED PRODUCTS:** Results of this research will add to the current knowledge base regarding how to enhance and increase teacher effectiveness and thus student achievement. Scholarly articles describing research findings will be submitted to appropriate professional journals. Findings and training procedures will be shared at state and national professional conferences. Technical reports on all aspects of the project will also be written and made available upon demand.

## **A National Evaluation of Residential Camp Programs Serving Persons with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

Brannan, Steve  
Institute for Career and Leisure  
Development  
4110 Sunburst Court  
Alexandria, VA 22303  
703-922-7045

GRANT NUMBER: H023C30002

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/96

### **ABSTRACT**

**PURPOSE:** The project will conduct a national evaluation of residential camp programs serving persons with disabilities.

**METHOD:** The investigation will include 14 residential school and/or summer camp programs serving children with disabilities, to include a total of approximately 1,500-2,000 cases nationwide. A pre-post measurement will be employed to determine campers' affective growth resulting from their exposure to residential camp programming. These measurements will be conducted by parents and caregivers to better measure program generalization and impact beyond the camp experience. A second test will be administered to determine effects of particular components of outdoor programming on skill acquisition of campers. A case study approach will also be employed using interviews and observations of a representative sample of campers from each regional site.

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**ANTICIPATED PRODUCTS:** The study will contribute significantly to the understanding of the value of planned outdoor programming for children with disabilities, address the benefits of residential camping experiences for persons with varying levels of disability, and provide professionals with validated and comprehensive procedures for evaluating residential camp programs serving children with disabilities.

## **Observational Assessment of Social Goals and Strategies of Young Children with Disabilities and Their Peers**

GRANT NUMBER: H023A30035  
BEGINNING DATE: 12/01/93

ENDING DATE: 1/31/95

### **ABSTRACT**

**PURPOSE:** This project will develop an observational assessment system. The system will measure the social goals and strategies that children with and without disabilities employ in interactions with their peers.

**METHOD:** Observational samples will be collected at two points in time for 40 preschool children with disabilities and 40 nondisabled peers. Analyses of reliability and validity of the observational instrument will be conducted, and the relationship between social goals and strategies for children with and without disabilities will be examined.

**ANTICIPATED PRODUCTS:** This work will provide researchers with a tool for investigating the nature of peer interactions of children with disabilities and nondisabled children. The project expects to be able to identify types of goals that children with disabilities have less success with, as compared to their nondisabled peers.

## **National Center on Assessment of Outcomes for Children and Youth with Disabilities**

GRANT NUMBER: H159C0004  
BEGINNING DATE: 10/01/90

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will improve the assessment of educational outcomes for children and youth with disabilities.

**METHOD:** The University of Minnesota will establish a center that will focus on six major activities: (1) engage in ongoing characterization of outcomes assessment practices in special education on a state-by-state basis; (2) develop a conceptual model for a comprehensive, national system of outcome indicators (CSI); (3) identify and implement procedures for information exchange about the developing CSI system; (4) identify, prioritize, and generate solutions to

technical and implementation issues in evaluating state and national outcomes; (5) design and implement an ongoing strategic planning process for advancing development of the CSI; and (6) identify and conduct analyses on extant databases that correspond to the conceptual framework of the CSI. The approach will be interdisciplinary, and there will be networking both within the Center and among the Center, educators, and the disability community.

**ANTICIPATED PRODUCTS:** A National Center on Assessment of Outcomes for Children and Youth with Disabilities, established at the University of Minnesota, will enable the development of a comprehensive system of outcome indicators to proceed in a systematic way to address the needs of all stakeholders and to integrate the system into training, research related activities, and national dissemination efforts.

### **Positive Mood Induction in Learning Disabled Students**

**PRINCIPAL INVESTIGATOR:**

Bryan, Tanis  
Mathur, Sarup  
Arizona State University  
College of Education  
Farmer's Building 305H  
Tempe, AZ 85287-2011  
602-965-2777

GRANT NUMBER: H023A30096

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This research project will focus on the impact of induced positive affect on the learning of groups of students who vary on the dimensions of learning disabilities and depression.

**METHOD:** The study will employ a factorial design with two levels of group (learning disabled and nondisabled), two levels of affect (depressed, nondepressed) and two levels of induction (positive mood induction, neutral mood induction). Subjects will participate in three learning-to-read tasks on two occasions during the school year; approximately 40 students with learning disabilities from classes in junior high schools in the Paradise Valley School District near Phoenix, Arizona will be included. The study will examine: (1) the incidence of depression among students with learning disabilities; (2) the effect of depression on certain reading skills; (3) the impact of induced positive moods on certain reading skills; and (4) the durability of such effects across time.

**ANTICIPATED PRODUCTS:** Results of the study have implications for assessment and interventions with students with learning disabilities. To find that depression interferes with learning would provide an important extension of our understanding of learning disabilities; to find that positive affect can be self-induced by students would provide a potentially significant new form of intervention.

**PRINCIPAL INVESTIGATOR:**

Bullock, Charles  
University of North Carolina  
Center for Recreation and  
Disability Studies  
730 Airport Road, Suite 204  
Chapel Hill, NC 27599-8145  
919-962-0534

## Link in Leisure Education

GRANT NUMBER: H023C20199

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/97

### ABSTRACT

**PURPOSE:** This investigation will focus on understanding and documenting the extent to which self-determination skills can be facilitated using an individualized leisure education planning process with students with mental retardation.

**METHOD:** The first phase of research will feature a pilot study using a quasi-experimental single subject research design. Phase 2 will incorporate a pretest/posttest quasi-experimental design using curriculum-based measures to investigate the effect of the leisure education intervention on dependent variables. Phase 3 will focus on generalization to the regular education setting, using a sample of students with mental retardation from grades 6 through 8 who have been referred for leisure intervention services.

**ANTICIPATED PRODUCTS:** Specific outcomes expected include: (1) development of a systematic individualized leisure education planning process; (2) development of a comprehensive teacher training program promoting inclusion of leisure education as part of the special education curriculum; (3) development of a family training program to help families become active participants in their children's education; (4) documentation of the relationship of the leisure education program of self-determination and recreation participation; and (5) documentation of the role and significance of home-school collaboration and follow-up. Products will include: (1) internally printed reports and monographs; (2) articles submitted to journals and magazines; (3) presentation of results at professional conferences; (4) easy-to-read parent/family brochures and booklets; and (5) model program guidelines.

## Research on Self-Determination in Individuals with Disabilities

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023J20005

BEGINNING DATE: 10/01/92

ENDING DATE: 12/30/94

### ABSTRACT

**PURPOSE:** This study will conceptualize, define, and provide assessment tools that practitioners can use to identify and implement strategies in school settings to improve self-determination skills and outcomes for children and youth with disabilities.

**METHOD:** Systematic input from experts and from special education students and their providers (including teachers, parents and other education/related services providers) will be used to develop and refine an operational conceptual framework for self-determination, related definitions and indicators, and specific measures. A pilot test, field test, and validation substudy will follow in two large, urban, ethnically-diverse school districts that will determine the extent to

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which the assessment measures are reliable and valid for elementary, middle, and secondary level students; these students will present a variety of disabling conditions, levels of functioning, and diverse cultural and language backgrounds. Psychometric analyses will include three types of reliability evaluations, three types of validity evaluation, and three types of utility evaluations.

**ANTICIPATED PRODUCTS:** Information sharing and meetings with sister studies on self-determination will improve conceptualization and measurement of self-determination. Stakeholder input regarding implications of the project's findings and the assessment approach will be utilized to refine the final dissemination package. This package will include the assessment measures, implementation guide, other descriptive material, and summary of project findings.

## Self-Determination Assessment Project

GRANT NUMBER: H023J20012  
BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### ABSTRACT

**PURPOSE:** The ARC will conduct research for the purpose of identifying component characteristics of self-determination for individuals with disabilities and developing an assessment for use with students with mild cognitive disabilities (mental retardation and learning disabilities).

**METHOD:** The project will adopt a "bottom-up" approach to assessment development, beginning with identification of component elements of self-determination among adults and adolescents with cognitive disabilities. A comprehensive examination and synthesis of the literature pertinent to self-determination and its component elements will be undertaken, with emphasis on constructs from social learning theory to develop a model of the development, acquisition, and enhancement of self-determination. Concurrently, project staff will engage in two research studies to validate the component characteristics of self-determination. Adults, and subsequently students, with cognitive disabilities who do or do not exhibit self-determination will be identified. Individuals in these groups will be evaluated using a battery of 12 assessments and procedures measuring their autonomy, self-actualization, and self-regulation. These data will be analyzed to determine which of the assessments predict differences between groups (e.g., self-determined, not self-determined), and as such which constructs (e.g., self-efficacy, self-concept, outcome expectations, self-esteem, autonomy, quality of life, assertiveness, impulse control, locus of control, problem solving, and choice and decision-making ability) best predict self-determination. A consensus conference including people with cognitive disabilities, parents, and professionals in education and human development will be held to validate the conceptual framework developed as a result of the literature review and research studies. Project personnel will develop questions pertaining to each domain identified as contributing to self-determination, systematically evaluate the assessment format to minimize acquiescence, then field-test this assessment with students identified as having a learning impairment. These results will be analyzed for construct validity and revised accordingly. When the



assessment evidences adequate internal validity, the tool will be field-tested with 500 students with cognitive disabilities. Reliability and construct validity will be determined by examining relationships between the measure and measures related to self-determination, behavioral observations, and teacher ratings and, for a portion of the sample, test-retest procedures.

**ANTICIPATED PRODUCTS:** The research results will be made available in a self-report assessment of self-determination for students with cognitive disabilities. Study outcomes and project papers will be submitted to professional journals; project findings and updates will be made available to parents and to individuals with cognitive disabilities; information on the assessment and protocol will be made available to professionals through professional associations. In addition, The ARC will pursue publication of the assessment in concert with the current self-determination materials.

## **Improving Learning Through Home/School Collaboration**

**PRINCIPAL INVESTIGATOR:**

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312-996-4948

GRANT NUMBER: H023L10010

BEGINNING DATE: 11/01/91

ENDING DATE: 10/31/94

### **ABSTRACT**

**PURPOSE:** This research program will examine: (1) current practices regarding homework and performance assessment and their impact on children's achievement, family climate, and home/school relationships; (2) family-child interactions concerning the topics of homework and grading; and (3) teachers', childrens', and parents' interpretations of fairness and effectiveness of testing and homework practices.

**METHOD:** Subjects will include regular and special education teachers, families, and approximately 200 students (grades 1-8) in suburban Chicago schools. Three groups of children will be involved: children with disabilities in mainstream programs, children with disabilities in resource room programs, and children who do not have disabilities. Seven studies will be conducted using a variety of methods. Structured interviews and questionnaires will be used to identify how homework and assessment practices are related to: (1) childrens' attitudes, feelings of self-efficacy, achievement motivation and achievement; (2) the home environment, and the family's attitudes and methods of support for homework and performance assessment; and (3) teachers' perceptions of family and child support for these practices. Another study will describe how parents, siblings, and children interact when engaged in homework. A series of interview and ethnographic studies will be conducted in schools to develop homework and assessment policies that are perceived as fair and effective by teachers, students, and parents. Data will be analyzed using a variety of qualitative and quantitative approaches including analyses of variance, hierarchical regression analyses, and discriminant analyses.

**ANTICIPATED PRODUCTS:** Results of the studies will be disseminated to parents, teachers, and administrators via conference presentations, journal articles, and education databases.



## **Performance Assessment and Children with Learning Difficulties: Procedures and Outcomes in a State-wide Assessment System**

**PRINCIPAL INVESTIGATOR:**  
Elliot, Stephen  
Wisconsin Center for Education  
Research  
1025 West Johnson Street  
Madison, WI 53706  
608-263-8841

GRANT NUMBER: H023A30041  
BEGINNING DATE: 9/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will attempt to gain an understanding of how students with disabilities react to on-demand performance assessment tasks in mathematics and communication arts.

**METHOD:** This investigation will focus on the use of performance assessment tasks, as operationalized in a state-wide student assessment system, with a sample of middle school students (N-300) with varying academic abilities. The research will be coordinated with the Wisconsin Student Assessment System Performance Assessment Development project and extend that project's efforts by facilitating the inclusion of students with disabilities in the state-wide assessment program. Students' performance on the new assessment tasks and multiple-choice tests, as well as assessment interviews, will provide data to answer questions concerning psychometric issues and the use of performance assessment tasks with students with disabilities. Teachers involved in the administration of the performance assessment instruments will also be interviewed via a structured questionnaire to provide additional data on the functioning of students with disabilities on performance assessment tests.

**ANTICIPATED PRODUCTS:** Accomplishment of the major objectives of the study will advance both empirical and practical knowledge about performance assessments for students with disabilities. Presentations of papers at national and state conferences on children, assessment, and schooling and manuscripts submitted to professional journals will enhance the impact of this project and facilitate advancement of research on performance assessment with students with disabilities.

## **Improving Learning Through Home/School Collaboration: Research Policies and Practices for Students with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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Educational Research and  
Services Center, Inc.  
425 Fisk Avenue  
DeKalb, IL 60115  
815-756-2305

GRANT NUMBER: H023L10002

BEGINNING DATE: 11/01/91

ENDING DATE: 10/31/94

### **ABSTRACT**

**PURPOSE:** This project will investigate the effects on students with disabilities and students who do not have disabilities of two areas of home-school collaboration that have been significantly impacted by the school reform movement: homework and performance assessment.

**METHOD:** Eight research studies will address the issues of homework and performance assessment. Studies 1 and 2 will survey state and local superintendents and directors of special education to determine existing policies and practices regarding homework and performance assessment. Study 3 will interview principals and teachers from rural, urban, and suburban districts in northern Illinois to determine if practices are related to policies. Studies 4 and 5 will focus on regular education teachers, students with disabilities, and parents to examine the direct and unintended side effects of these practices and the demands they place on students with disabilities and their families. Study 6 will focus on regular education teachers, students who do have disabilities and their families to determine if schools have alternative practices for this population. Study 7 will involve the development, field testing, and social validation of recommendations and products to enhance home-school collaboration, and Study 8 will use a series of single-subject studies to experimentally validate the recommended practices. A variety of qualitative and quantitative methodologies will be used including social validation, chi-square analyses, and ANOVAs.

**ANTICIPATED PRODUCTS:** Products will include a series of validated practices on home-school collaboration, field-tested manuals, and videotapes.

## **Research in Self-Determination**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023J20004

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will develop a conceptual framework and assessment methodology that will support the development of self-determination as an outcome of schooling.

**METHOD:** The project will: (a) further develop, revise, and validate a model and operational definition of self-determination; (b) develop, pilot, and field-test instruments that assess behavioral, cognitive, and affective aspects of components of self-determination and (c) examine the degree to which high school special education programs currently address skills and knowledge related to self-determination as an outcome of schooling and make recommendations for

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program development and evaluation related to self-determination. The model validation process will include 135 interviews with students with disabilities who demonstrate a high rate of behaviors associated with self-determination as measured by the Self-Determination Observation Checklist and the convening of three state panels and one national panel. The field test will include a minimum of 270 students with disabilities in six high schools located in three states; an additional 135 students without disabilities will participate in the field test for comparative purposes.

**ANTICIPATED PRODUCTS:** Major outcomes from the project will be: (a) a comprehensive model and operational definition for self-determination, (b) construction of valid instruments to assess behavioral, cognitive and affective components of self-determination, and (c) a report detailing the current status of self-determination as an outcome of schooling for students with disabilities.

### **Improving Learning Through Home/School Collaboration**

GRANT NUMBER: H023L10008

BEGINNING DATE: 1/01/92

ENDING DATE: 12/31/94

#### **ABSTRACT**

**PURPOSE:** This project will explore the impact of education reform on the families of students with special needs at the elementary and secondary school levels, focusing on the issues of homework and performance assessment.

**METHOD:** The study will combine qualitative and quantitative methodologies to focus on three elements of Vermont's new assessment system in reading, mathematics, and science in 4th and 8th grades: a uniform test, a "best piece," and a portfolio of work completed during the school year. The sample comprises 40 students with a variety of disabilities, 20 without disabilities, and 20 at risk of educational failure. Parent-teacher focus groups; interviews with students, parents, and teachers; and teachers' action research logs will serve as ongoing sources of data and vehicles for collaboration. Additional information will be derived from participant observation, surveys, and school records. Expected outcomes include the identification of critical elements for achieving effective collaboration between home and school for students with disabilities in a rural area, and descriptions of the relationships between these elements and assessment practices, homework, practices, and the presence of "hidden instruction" from peers and family members.

**ANTICIPATED PRODUCTS:** Anticipated products include journal articles, conference presentations, and video presentations.

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## **Longitudinal Affective and Social Outcomes of Special Education Placement Options for Students with Mild Disabilities**

GRANT NUMBER: H023C30103  
BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/98

### **ABSTRACT**

**PURPOSE:** This project will assess the stability and change of the social and affective characteristics of children with mild disabilities placed in "segregated" versus "integrated" settings compared to "at-risk" children and children who are achieving normally.

**METHOD:** A total of 300 referred 3rd graders will be randomly selected and matched in terms of age, gender, and ethnicity to 100 3rd graders identified as achieving normally. Measurement of social and affective outcomes will include sociometric assessments of peer acceptance/rejection, and teacher ratings of social skills, self-concept, loneliness, school attitudes, and critical behavioral events. In addition, comprehensive assessments of students' school histories will be recorded and quantified from existing school records. The project will examine both short-term and long-term effects of various educational placements on students' social and affective development using a prospective longitudinal research design.

**ANTICIPATED PRODUCTS:** Findings from this project will be targeted to have an impact in three areas: the academic community and other research activities, the cooperating school districts, the California State Department of Education and the department's special education section. In addition to the conventional outlets of published reports and conference presentations within the research community, personnel from state school districts will be involved in education community conference presentations and publications to target educators and policymakers.

## **Pilot Development of a New Method for the Assessment and Instruction of the Locomotor Skills of Blind Children**

GRANT NUMBER: H023A30076  
BEGINNING DATE: 9/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project is designed to enhance the assessment and instruction of two locomotor skills of fundamental importance to the development and safety of blind children; namely, the skills of maintaining a straight path of travel and the skill of making accurate 90- and 180-degree turns.

**METHOD:** The method to be employed will use a lightweight, student-worn sensor system that provides audible feedback when a preset amount of bodily rotation has been exceeded. Phase I will focus on the development and evaluation of alternative configurations for the sensor system. During Phase 2,

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prototypes of the system will be built, evaluated, and refined. Phase 3 will involve the assembly of at least five sensor systems, laboratory evaluation of the systems, and preparation of assessment and instructional materials for teachers of blind children. The principal activity of Phase 4 will be a field test of the new method with blind students from at least four school districts.

**ANTICIPATED PRODUCTS:** The outcome of the project will be a new method of assessment and instruction that will: be effective with children of widely varying skill levels; enable the gradual shaping of skill; be challenging and motivating to a wide age range of students; be technologically sophisticated yet easy to use; and enable teachers to assess and track students' progress. The outcomes will enable further research about the best methods to structure instruction and practice for skill acquisition.

### **Feasibility Study: A Process to Measure Student Outcomes**

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GRANT NUMBER: H159F30002

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will identify and/or develop a process to measure direct student outcomes in the areas of academic, social, and functional performance and to modify the conceptual framework and evaluation design of the Oregon Supported Education study.

**METHOD:** The project will identify and/or develop a process to measure direct student outcomes appropriate for students with mild disabilities, severe disabilities, and behavioral disorders. The Oregon Supported Education study conceptual framework and evaluation design will be extended to enable the use of these direct outcome measures to test the validity of teacher and parent perceptions of student performance, and to enable comparisons between students in supported education sites and students in nonsupported education sites (special education self-contained). The data collection process will be pilot tested to support the extension of the evaluation design.

**ANTICIPATED PRODUCTS:** A feasibility report for extending the Oregon Supported Education study will be produced. This study will extend the current full evaluation participant-oriented design to collect direct outcome measures such as academic achievement, functional skills, social competence, attendance, grades, and assessment of classroom assignments.

## **An Investigation of Generalization of Computer-Assisted Instruction for Persons with Developmental Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30040

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This project will conduct two studies to investigate generalization of computer-taught skills to the natural environment for students with moderate to severe mental retardation. Computer-assisted instruction (CAI) will be compared to CAI plus generalization training with real-life materials in classroom and community settings.

**METHOD:** The first study will test the use of practice trials in the classroom with real-life materials as a generalization technique. Ten subjects will each learn one set of concepts with and then another set of concepts without the use of practice trials. Pre- and posttest data will be used to assess effectiveness of the trials. The second study will focus on practice trials in community settings and will follow the same basic research model.

**ANTICIPATED PRODUCTS:** Results of the two studies will be disseminated through publications, presentations, and a pamphlet that will be distributed to software developers, teachers, parents, and professional organizations.

## **Play Project: Using Play to Teach About Objects, Events, and Language**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30050

BEGINNING DATE: 9/01/93

ENDING DATE: 2/28/95

### **ABSTRACT**

**PURPOSE:** This project will execute a series of studies using play activities as a medium of assessment and intervention designed to improve the instruction and learning of preschoolers with autism or autistic-like behaviors.

**METHOD:** Learning will be improved in the play activities through: (a) using play as a medium of intervention supporting cognitive, linguistic, and social developments; (b) fine-tuning the identification of play objectives for intervention to enhance acquisition and generalization of these activities; and (c) integrating language objectives with developmentally-based play objectives to increase the opportunities for implementation of both developmental goals in the same activities.

**ANTICIPATED PRODUCTS:** The research will result in the development of new methodologies for intervention and advances in assessment for preschoolers with developmental disabilities. Products of the proposed study will include a refined play assessment instrument, a manual, and a set of training materials

that incorporate language objectives and play objectives into a developmentally appropriate sequence of play activities that can be used by teachers working with preschoolers with autism and autistic-like behaviors in an integrated classroom.

## **Utility of Alternative Assessment Models for Identification of Mildly Handicapped Children**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20002

BEGINNING DATE: 7/01/92

ENDING DATE: 6/30/97

### **ABSTRACT**

**PURPOSE:** This project intends to establish the utility of alternative assessment vis-a-vis traditional assessment in establishing the eligibility of students with mild disabilities for special education and related services.

**METHOD:** Two interrelated studies will be performed. The first study will compare the extent to which current referral practices and alternative assessment procedures result in identification of the same at-risk children as would traditional assessment procedures. This study will consist of 135 students evenly divided among three ethnic groups who will be studied, assessed, and referred for formal assessment using alternative assessment procedures. The second study will compare the utility of four alternative assessment models (including dynamic assessment, achievement-achievement discrepancy, neuropsychological, and behavioral models). Stratified among three ethnic groups, 204 students will be evaluated using an alternative assessment model and traditional assessment models, with order of testing randomized. Degrees of coincidence and agreement among ethnic groups and between alternative and traditional models will be studied.

**ANTICIPATED PRODUCTS:** Findings from this project will inform policymakers on the utility of alternative assessment for reducing ethnic disproportions; moreover, it will permit informed decisions on the relative merits of the four commonly recommended alternatives. The project will also evaluate any ethnic bias among the models evaluated.



## **Unilateral Hearing Loss: Variables Associated with Educational Performance**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30110

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** The goals of this project include: (a) establishing a profile to predict academic performance; (b) adding to the existing database of information by providing a description of the population according to demographic variables; (c) developing training materials for dissemination of information; and (d) identifying questions for future research.

**METHOD:** The sample will include all children with mild, moderate, severe and profound unilateral hearing loss identified from three school systems within Alabama. In addition to employing two extant databases, four questionnaires will be employed to gather teacher, parent, medical, and student perspectives on student variables. Students will be divided into three groups: (a) no educational problems; (b) educational problems with grade retention; and (c) educational problems with special placement and/or resource services.

**ANTICIPATED PRODUCTS:** Evaluation of project objectives will be accomplished through: (a) a pilot study questionnaire; (b) an advisory group; (c) external evaluation; and (d) a follow-up evaluation questionnaire for project participants. Project findings are expected to provide the basis for proactive intervention directed at prevention of problems commonly experienced by students with unilateral hearing impairment.

## **Services for Outcomes and Performance Assessments for Students with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159A20009

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will identify a set of educational outcomes and develop a set of standards and procedures for assessing attainment of those outcomes that can be used by Maryland schools to measure the effectiveness of education provided to the target students.

**METHOD:** A task force consisting of 12 master teachers representing urban, suburban, and rural school districts as well as project staff from the Institute and the state department will work on development of indicators and development and pilot testing of the assessment tasks. Several rounds of field testing will be involved. Once outcomes have been developed, the task force will meet to draft one assessment task for each age level together with scoring standards. The 12 teachers will then administer the tasks to students at their schools and videotape students' performance and apply the scoring standards. The task



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force will then meet to develop a complete set of assessment tasks for one outcome. These tasks will be piloted in a second round of field testing, after which the task force will meet to revise the assessments and scoring standards.

**ANTICIPATED PRODUCTS:** Results of the study as documented in technical reports and the finished set of outcomes and evaluation tasks will add to the limited knowledge base concerning students with disabilities and performance assessments. Findings will also add to national efforts directed at defining critical outcomes and indicators for students with severe disabilities.

**Thinking in Science: A Supported Inquiry Approach  
for Learning Disabled Students in the Regular  
Classroom**

GRANT NUMBER: H023C20189

BEGINNING DATE: 9/01/92

ENDING DATE: 8/31/95

**ABSTRACT**

**PURPOSE:** This study will: (1) refine the Supported Inquiry Science approach so that it provides teachers with ways to assess diverse learning needs throughout their teaching of a science unit; (2) apply the approach at the 6th-grade level; and (3) determine whether the approach can be applied within a biological science topic.

**METHOD:** The first 2 years of the project will focus on development and piloting of diagnostic assessment and performance assessment strategies, as well as learning how to apply the approach in the 6th grade. The approach will be piloted within a biology subject in these years as well. The third year will include a rigorous field-test of the Supported Inquiry Science model in two grade levels and content domains. The research design will include an in-depth study of teacher implementation, use of both traditional and alternative performance assessment measures of student concept knowledge and inquiry skills, rigorous sampling, and an innovative training model.

**ANTICIPATED PRODUCTS:** Results of research will be disseminated to practitioners and researchers through publications and presentations and through development of guidelines that teachers and administrators can use to enhance science learning in regular education classes for students with learning disabilities.

## **Generalized Effects of Functional Communication Training: The Role of General Case Training and Behavioral Contingencies**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30085

BEGINNING DATE: 10/01/93

ENDING DATE: 3/31/95

### **ABSTRACT**

**PURPOSE:** The project will focus on assessing the influence of general case training procedures and specific behavioral contingencies in achieving generalized effects of functional communication training.

**METHOD:** The project will employ a systematic general case approach for determining the range of settings and situations that are important to include in training and generalization assessment of communication skills. After a conceptual review paper has been developed to define the role of general case procedures and behavioral contingencies in generalization of communication training, a research study will be conducted to document the functional relationship between general case training procedures, specific behavioral consequences, and generalized use of trained communicative skills. This study will emphasize the programming of specific consequences for problem behaviors.

**ANTICIPATED PRODUCTS:** The two major outcomes of the project will include: (1) a conceptual review paper delineating the role of general case procedures and behavioral contingencies in functional communication training; and (2) a research study and report on the effectiveness of such procedures in achieving generalized performance of alternative communicative skills.

## **A Path to Literacy for Deaf Children through English and American Sign Language (ASL)**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30074

BEGINNING DATE: 8/01/93

ENDING DATE: 7/31/97

### **ABSTRACT**

**PURPOSE:** The project will assess the relationship between American Sign Language (ASL) competence and English literacy among deaf school children aged 8 to 15 years.

**METHOD:** Approximately 200 students aged 8 to 15 enrolled in a residential school for the deaf will be tested annually for 3 years. ASL skills will be measured using a specially devised comprehension test, administered by videotape and requiring a nonverbal response. English literacy will be measured using the Woodcock-Johnson Psycho-Educational Test Battery-Revised and a psycholinguistic computer measure developed by the investigator. Performance IQ will also be assessed. Research questions will then address the synchronic and diachronic relationships between ASL skills and English literacy, as well as exploring at what age ASL plays its greatest role in facilitating gains in English literacy.

**ANTICIPATED PRODUCTS:** Findings of research will be disseminated via published research reports, assessment guides, diagnostic manuals, and presentations at national conferences. Results will serve as a basis for future assessment of ASL and academic performance to be carried out at participating schools to further extend the database. Follow-up research is expected to implement and evaluate a full-scale literacy program using ASL and English for deaf children in the United States. This program will serve as a model to numerous groups advocating a "bilingual/bicultural" approach for deaf children, and will therefore have a direct impact on many thousands of deaf students, their families, and their teachers.

### **Development and Validation of an Instrument to Measure Social Processes and Intervention Effects Within Mainstreamed Class Environment**

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GRANT NUMBER: H023C10135

BEGINNING DATE: 7/01/91

ENDING DATE: 6/30/94

#### **ABSTRACT**

**PURPOSE:** This project will develop and validate an ecobehavioral assessment instrument that will yield information concerning social processes in the mainstream elementary classroom and that can be used to elucidate the relationships of these process variables to student social outcomes such as social competence and peer acceptance.

**METHOD:** First, a new ecobehavioral evaluation instrument similar to the Code for Instructional Structure and Student Academic Response (CISSAR) will be developed to measure the social environment and social interactions within the mainstream elementary classroom. Next, the resulting observation system will be field-tested in mainstream classrooms in the public schools. A series of four studies will be conducted to establish the reliability, validity, and stability of the instrument and to test the sensitivity of the instrument to changes in process and product variables. A social skills training program will be implemented in selected classrooms, and the effects of the intervention will be determined through the use of a pretest-posttest control-group design. The effects will be measured using the ecobehavioral observational code, standardized social adjustment measures, social skills curriculum-based outcome measures, and academic curriculum-based outcome measures. The population samples for each study will be drawn from public school children attending grades 4, 5, and 6 in two school districts in Kansas: Lawrence and Kansas City. Subjects will be randomly selected from three groups of students in each classroom: students with educational disabilities, students with high social status/acceptance, and students with low social status/acceptance.

**ANTICIPATED PRODUCTS:** The immediate outcomes of this project will be validation and dissemination of an ecobehavioral assessment package for social behavior in mainstream educational settings. This package will contain: a fully validated observation system; observer training materials; technical reports on reliability, validity, stability and sensitivity of the assessment package; and computer software for analyzing the data on microcomputers.

## **Commonwealth Institute ADHD Project: Effects of School, Child, and Family Variables on Drug Responsiveness of Children with ADHD**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30082  
BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

### **ABSTRACT**

**PURPOSE:** This project will utilize ecobehavioral principles and concepts, within the framework of a robust experimental design, to investigate the effects of school, child, and family variables on drug responsiveness of children with attention deficit hyperactivity disorder (ADHD).

**METHOD:** A sample of 250 children with ADHD, aged 6 to 12 years, will be enrolled in a within-subject, crossover, placebo-controlled, double-blind, dose-response study of methylphenidate, with the placebo and drug order to be determined according to a 3 x 3 Latin square design. Following a drug-free baseline, children will be randomly rotated through placebo and two active drug conditions, according to one of three experimental sequences. Drug responsiveness will be analyzed across several variables, including academic performance and curriculum-based measures, teacher and parent ratings of social and maladaptive behaviors, child attributions of treatment effects, and side effects. Four school variables, five child variables, and four family variables will also be analyzed alongside a host of sociodemographic variables.

**ANTICIPATED PRODUCTS:** Due to the large sample size of this study, the project will be able to provide a mathematical model of drug interactions that will enable researchers to use smaller samples in future studies of this nature. The data from this study will provide the first comprehensive ecobehavioral assessment of the effects of methylphenidate on children with ADHD.

## **Students with Learning Disabilities' Adjustment in Middle School: Impact of Stress and Social Support**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30042  
BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This project will improve the understanding of the stress students with learning disabilities experience in middle school, the social support systems they use, and the role that social support plays in the adjustment of these students to the middle school environment.

**METHOD:** Students with learning disabilities will be identified and a comparison group of nondisabled students who are average achievers will be established. Researchers will collect information about the stressful events students experience in middle school, the general level of stress in their families, their social support networks, and their adjustment in middle school. A matched two-group cross-sectional correlational design will be employed that will allow

researchers to investigate the level and nature of students' stress, the nature of students' social support, and the mediating role social support plays in ameliorating negative effects of stress on adjustment.

**ANTICIPATED PRODUCTS:** The results of this study will provide needed information about the nature of the stress students experience in middle school and how they utilize social support to manage that stress. This information should help educators to focus not only on where to reduce stress, but how to increase support to students with learning disabilities throughout middle school. This knowledge will serve as a foundation for educators to use as they develop plans and programs designed to help students with learning disabilities adjust to the changing and complex educational and social setting of the middle school.

### **Project FACILE (Functional Analysis and Contextual Intervention in Learning Environments)**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20040

BEGINNING DATE: 8/01/92

ENDING DATE: 7/31/97

### **ABSTRACT**

**PURPOSE:** Project FACILE will study individualized and system-level technologies for improving the educational experiences of students with at-risk behaviors.

**METHOD:** The project will conduct a complete functional analysis, use the analysis results to determine the possible communicative function of the behavior in question, and design an intervention to replace the behavior with a prosocial response that serves the same communicative function. These assessment and intervention procedures will be systematically tested at individual and school or system levels. Normative rates of at-risk and appropriate social behaviors and social validation data will be used to evaluate the goals, procedures, and outcomes from this project. School personnel will be trained to screen for at-risk children, conduct functional analyses, and design and implement contextual interventions.

**ANTICIPATED PRODUCTS:** Training materials based on empirically validated procedures will be produced to improve practitioners' ability to develop effective intervention strategies for students with at-risk behavior and reduce potential negative outcomes predicted for at-risk students who receive inadequate systematic interventions. Students with at-risk behavior will increase their prosocial skill level, thereby reducing academic and social risks. New research-validated knowledge and understanding of effective assessment and intervention strategies will be generated. Research findings will be disseminated through a variety of professional outlets.

## **Feasibility of Using an Outcome-Based Model to Evaluate Educational Effectiveness in The District of Columbia**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159F30004

BEGINNING DATE: 1/01/94

ENDING DATE: 6/01/95

### **ABSTRACT**

**PURPOSE:** This project will develop an evaluation methodology linked to national efforts to establish outcome-based education for all students, including those with disabilities.

**METHOD:** Researchers will engage in an 18-month study of the feasibility of evaluating educational outcomes in the District of Columbia schools. Specifically, the State Office of Special Education will study the extent to which it can use the conceptual model of educational outcomes and indicators developed by the National Center on Educational Outcomes to develop standards for measuring educational accomplishments for students with special needs. The conceptual model developed by NCEO will be used to reorganize current data collection efforts, assist in identifying the domains, and develop the measures necessary to produce data on educational accomplishments. At the same time, the process will afford an opportunity to engage in comparative studies of results in other states.

**ANTICIPATED PRODUCTS:** A full technical report will be written that describes the development process, each feasibility activity, and the results of the overall study. The project will result in a set of procedures that can be implemented in efforts to evaluate the effectiveness of special education in the District of Columbia schools.

## **Development and Validation of an Instrument to Measure Self-Determination of Adolescents and Young Adults with Disabilities**

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GRANT NUMBER: H023J20003

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will develop an instrument to assess levels of self-determination of adolescents and young adults with disabilities.

**METHOD:** The program will develop a conceptual framework of self-determination for adolescents and young adults with disabilities through local and national focus groups, individual interviews with persons with disabilities who display self-determination traits, and establishment of an expert panel. Individual variables indicative of self-determination will be identified. Staff will then develop, validate, and field-test an assessment approach for youth with disabilities. Year 1 activities will be devoted to conducting literature reviews,



focus groups, consumer interviews, and other activities to identify variables related to self-determination and development of a corresponding draft instrument. Year 2 activities will focus on pilot testing and field testing of the instrument on a sample of 500 to 1,000 students with disabilities, subcontracted to educational systems, university-affiliated programs, and other agencies who provide services to multiple school systems.

**ANTICIPATED PRODUCTS:** The program's primary benefit will be to develop an instrument and protocol for assessing levels of self-determination in specific life domains, thereby providing baseline information for improving students' self-determination, self-directedness, self-advocacy, choice, and empowerment as students and as adults. After collaborating with other projects for exchange of information and ideas, staff will develop feedback mechanisms and processes for target dissemination groups and proceed with dissemination via workshops and conferences, the marketable instrument and administration manual, newsletters, teleconferencing, and instructional videotapes.

### **Combining New Models of Assessment of Written Language for Students with Learning Disabilities (LD)**

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GRANT NUMBER: H023C30121  
BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** The study will identify maximally effective ongoing assessment procedures in written language for students with learning disabilities by testing a merger of portfolio assessment and curriculum-based measurement techniques.

**METHOD:** The effects of four treatment conditions will be compared: control, use of written language curriculum-based measurement, use of portfolio assessment in written language, and a combination of portfolio and curriculum-based assessment. Three types of dependent data will be used including measures of achievement; surveys of parent, teacher, and student satisfaction with assessment procedures, and measures of instruction. Dependent measures will be analyzed to compare the effectiveness of the four treatment conditions. The combination of curriculum-based and portfolio assessment is expected to be most valuable, as curriculum-based measurement helps teachers judge the effectiveness of instruction while portfolio assessment helps teachers decide what to teach and how.

**ANTICIPATED PRODUCTS:** The impact of project findings is expected to be felt on the levels of direct services to students, increased communication between general and special education, teacher training, and research. At least four publications are expected to result from the research; other studies to replicate project findings are expected to follow as well.

## **Project Target: Criterion-Referenced Physical Fitness Standards for Adolescents with Handicapping Conditions**

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GRANT NUMBER: H023C30091

BEGINNING DATE: 6/01/93

ENDING DATE: 5/31/98

### **ABSTRACT**

**PURPOSE:** The project will establish and validate criterion-referenced physical fitness test items and standards for adolescents with selected disabilities.

**METHOD:** Approximately 2,100 adolescents with sensory, orthopedic, or mentally disabling conditions will be trained and/or tested on selected physical fitness parameters. Tests to be employed will include PHYSICAL BEST, the health-related test of the American Alliance for Health, Physical Education, Recreation, and Dance Fitnessgram, and the physical fitness test of the President's Council on Physical Fitness and Sport. Findings from these tests will be used as the basis for the statistical validity of developed criterion-referenced standards. In addition, a criterion-referenced Project Target Test of Physical Fitness and a corresponding educational program for the development of physical fitness would be created.

**ANTICIPATED PRODUCTS:** As a result of project activities, four national tests of physical fitness will be made more valid, usable, and accessible for adolescents with disabilities. The project will extend the nation's current emphasis on criterion-referenced testing and programming to school-aged youngsters with disabling conditions.



## ***SECTION 2:***

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# ***CULTURAL DIFFERENCES***

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## **Parent Perceptions of Home Visitors: A Comparative Study of Parents Who Are American Indian and Non-Indian Parents**

GRANT NUMBER: H023B30006

BEGINNING DATE: 7/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** The study will examine perceptions by Native American parents and caregivers of the early intervention services provided within the home by professionals and paraprofessionals.

**METHOD:** Four professionals and four paraprofessionals will each be assigned to work with 20 Native American and non-Native American parents. Translators will be hired and trained as necessary to interview parents to assess their attitudes and opinions toward care providers and services provided.

**ANTICIPATED PRODUCTS:** Findings from this study will provide information regarding the perceptions in the home of paraprofessional and professional home visitors, as well as explore the current state of services provided to Native Americans on reservations and possible cultural and linguistic challenges encountered.

## **National Center for Minority Special Education Research and Outreach**

GRANT NUMBER: H029T10007

BEGINNING DATE: 1/01/92

ENDING DATE: 12/31/95

### **ABSTRACT**

**PURPOSE:** The overall goal of the Center is to increase the capacity of colleges and universities serving minority students to be competitive in developing proposals and seeking and obtaining discretionary funds.

**METHOD:** The Center's approach will focus on four major areas: (1) promotion and support of infrastructural change that will sustain increased capacity to seek and obtain funds; (2) promotion of technical assistance activities for interdisciplinary collaborative teams that will support submission of proposals for research, model development, and dissemination projects; (3) development and support of a model for long-term protege-mentor relationships to provide training and support to participating faculty; and (4) dissemination of information that will support systemic change to increase the production of research, model demonstration, and dissemination projects and proposals.

**ANTICIPATED PRODUCTS:** Through this program, historically black colleges and universities and other minority institutions will show an increased capacity to be competitive in developing proposals and seeking and obtaining funding. A congressionally mandated dissemination unit will be established, to include a

clearinghouse devoted to minority special education research, model development, and related activities and issues. The clearinghouse will produce and disseminate a newsletter, reviews, and position and research papers, while the Center itself will provide training workshops and related services to Center staff, mentor/consultants, participants, and multidisciplinary teams.

### **Proactive Schooling: Preventing Dropout in Highest Risk Adolescents**

**PRINCIPAL INVESTIGATOR:**

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Santa Barbara, CA  
805-961-3477

GRANT NUMBER: H023K00011

BEGINNING DATE: 9/01/90

ENDING DATE: 8/31/95

#### **ABSTRACT**

**PURPOSE:** The purpose of this project is to develop, implement, and evaluate the effectiveness of a comprehensive school-based dropout prevention program targeting highest risk, lowest achieving Hispanic adolescents who have learning disabilities and serious emotional disturbances.

**METHOD:** All students will come from a junior high school in the Los Angeles Unified School District. The intervention will consist of a multifaceted program focusing on four spheres of influence on student achievement and school continuance. Students' social and task-related behavior will be remediated with a previously tested social metacognitive problem-solving training program. Parents' lack of school participation and infrequent joint decision making with their adolescents will be remediated through parent training of these skills. Teachers' infrequent feedback to at-risk students will be remediated by having teachers provide weekly and bi-monthly reports to students and parents. The students' alienation and lack of bonding with the school will be remediated through specific student-student and adult-student bonding activities. The students' high truancy rates will be remediated through school period-by-period attendance monitoring. The design will be an experimental-control group contrast using three methods of analysis: quantitative, ethnographic, and cost-effectiveness.

**ANTICIPATED PRODUCTS:** Dissemination activities will include annual newsletters, presentations at national and state conferences, articles in professional journals, a book, and several handbooks describing guidelines and strategies for implementing the interventions.

## **Influences Affecting Southeast Asian Perceptions of Special Education in the USA**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30064

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/95

### **ABSTRACT**

**PURPOSE:** This study, focusing primarily on Cambodians, will examine the following research questions: (1) What are the cultural and historical variables that influence individual parents' and teachers' perceptions regarding children with disabilities and special education intervention in American schools? (2) What are the commonalities and unique characteristics that affect both positively and negatively the learning processes of Cambodian students with disabilities? and (3) How do the learning/teaching strategies for Cambodians with disabilities differ from those for other language minority students?

**METHOD:** Project staff will collect data from Cambodian teachers and parents about their beliefs and perceptions regarding children with disabilities and special education. Collected data will then be analyzed, synthesized, and interpreted to better understand Cambodian parents' beliefs regarding special education intervention and its effects on their children's education. A survey packet will be developed to measure these variables and will be applied in Lowell, Massachusetts. Two parents and two teachers will be selected as case studies representative of negative and positive perceptions. Profiles of one elementary school, one middle school, and one high school will be constructed using building personnel.

**ANTICIPATED PRODUCTS:** Findings will be disseminated to concerned researchers and educational institutions at local, regional, and national levels who are interested in improving programs and services for Southeast Asians students with disabilities in general, and Cambodians in particular. Findings will be submitted to educational journals for publication and will be presented at local, state, regional, and national conferences.

## **Project SERVE LD: Successful Early Recognition of Variables in the Evaluation of Learning Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30010

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will attempt to reduce the theory-practice gap in identification of and preparation of remediation plans for students with learning disabilities by analyzing the decision process and identifying the salient variables that ultimately result in final diagnosis and interventions for teachers, resource specialists, and psychologists working with children with learning disabilities.

**METHOD:** Beginning with stated definitions and policies for disability determination and the development of treatment plans, the project will study what actually happens in practice for approximately 10,000 African-American,

Asian, Caucasian, Filipino, Latino, Indochinese, and Native American children who will be referred and evaluated for all types of learning disabilities in the diverse San Diego City System. Through regression analysis, factor analysis, and discriminant analysis applied to approximately 100 variables per child, the program will analyze the decision process, determine the variables that are actually employed to qualify a child as learning disabled, describe the characteristics of children referred for, but not qualified as learning disabled, summarize the process of developing treatment recommendations, and examine how treatment plans are implemented.

**ANTICIPATED PRODUCTS:** Information gained through this study will be systematically communicated to teachers, resource specialists, LD psychologists, administrators, and parents in order to have an immediate positive impact in streamlining the process of learning disability determination and the development of treatment plans. Findings will be further disseminated via reports to school administrators and parents in communities involved, through a monograph to be developed and sent to local, state, and national agencies and to researchers in the field, through symposia presentations at professional conventions and through publications in major journals.

### **Educating Young Disabled African-American Children in the Context of Their Families: A Research for Variability**

**PRINCIPAL INVESTIGATOR:**  
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GRANT NUMBER: H023N10022  
BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This study will focus on a systematic, comprehensive analysis of the characteristics of African-American families with particular reference to caregiving and intervention needs for an at-risk child or a child with disabilities.

**METHOD:** The subjects will be 150 African-American families with children ages 0-5 years who are enrolled in an intervention program for at-risk and/or developmentally delayed children. A longitudinal study will be conducted involving initial interviews of all families and follow-up sessions after intervals of approximately 6 and 12 months. Descriptive and correlational statistics will be used to study the nature of within-culture variability among dimensions of the families such as caregiving beliefs and practices, perceived family characteristics, and ethnic identity. A multiple analysis of variance approach will be used to test for group differences in family characteristics along social class, ethnic identity, and family structure dimensions. The extent of change in family needs over time and the factors differentially predictive of overall family needs and child-related family needs will also be examined. Researchers plan to identify implications of findings for service delivery, preservice and inservice training, and future research.

**ANTICIPATED PRODUCTS:** Products may include reviews of literature, research monographs, articles, protocols, workshops, and other appropriate outgrowths of the research.

**Ecobehavioral Assessment, Class-wide Peer Tutoring,  
and Racial/Ethnic Minority Students with EMR:  
Validation of Academic Engaged Time, IEPs, and  
Achievement**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20145

BEGINNING DATE: 7/01/92

ENDING DATE: 6/30/95

**ABSTRACT**

**PURPOSE:** This project will investigate instructional practices that will maximize the academic progress of racial/ethnic minority and majority students with and without mild mental retardation in elementary school environments, including self-contained, resource room, and regular education settings.

**METHOD:** This research will involve three studies. The first will employ ecobehavioral assessment procedures to measure the classroom environment and determine natural ways to facilitate academic progress in racial/ethnic minority and majority students with mild retardation. The second will examine relationships between ecological assessment data, academic engaged time, specified objectives in IEP's, and scores on standardized achievement and curriculum-based assessments. The third study will investigate the effectiveness of class-wide peer tutoring as an instructional procedure leading to an improvement in students' academic behaviors during reading, spelling, and math instruction. Collectively, these studies will describe, test, and validate the effective components for the academic instruction of elementary-aged racial/ethnic minority and majority students with mild retardation.

**ANTICIPATED PRODUCTS:** The benefits of this work will be: (a) new knowledge concerning the ecobehavioral features of instruction; (b) systematic replication; (c) adoption of effective instructional procedures to a new population; and (d) translation of research to practice. Results will be disseminated to teachers and students in the metropolitan Kansas area, reported to professionals and teacher-trainers at state and national conferences, and submitted for publication in refereed journals.

## ***SECTION 3:***

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### ***INFANTS, YOUNG CHILDREN, AND FAMILIES***

**PRINCIPAL INVESTIGATOR:**

Bailey, Don  
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## **A Longitudinal Study of Young Children with Fragile X Syndrome and Their Families**

GRANT NUMBER: H023C30081

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/98

### **ABSTRACT**

**PURPOSE:** This project will conduct a longitudinal study of the development of at least 100 boys with Fragile X syndrome between birth and 72 months of age.

**METHOD:** Using growth curve analysis, the project will characterize developmental patterns and document the attainment of key developmental milestones in five domains: cognitive, communicative, social, adaptive, and motor skills. The project will also document stability and change in temperament and behavioral characteristics. Interviews and surveys will be used to describe unique family contexts among subject children. A final component of the study will determine clinicians' perceptions of the unique learning styles and instructional or therapeutic strategies needed for young children with Fragile X syndrome.

**ANTICIPATED PRODUCTS:** The project hopes to provide a foundation for future proposals including a longitudinal life span study of persons with Fragile X syndrome and their families, as well as other research linking biological and environmental factors to developmental outcomes. Dissemination efforts will include promotional brochures, a monthly newsletter, curriculum materials, and handbooks.

## **Integrated vs. Isolated Treatment in Early Intervention: A Controlled Longitudinal Comparison of Treatment Models**

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GRANT NUMBER: H023C00056

BEGINNING DATE: 10/01/90

ENDING DATE: 6/30/95

### **ABSTRACT**

**PURPOSE:** This project will study the relative merits of integrated treatment and isolated treatment in early intervention.

**METHOD:** Children with developmental disabilities at a university-based mainstreamed child care facility will be randomly assigned to one of the treatment conditions. The subjects will be followed for 1 to 4 years. Additional sites will be used to test the replicability of the design in the second, third, and fourth years.

**ANTICIPATED PRODUCTS:** The results of this study will provide teachers, administrators, and policy makers with the information needed to guide them in the most effective model for delivering occupational therapy, physical therapy, speech and language therapy, and special education.



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## **Age of Peers and Its Effects on the Social Interactions of Preschoolers with Disabilities**

GRANT NUMBER: H023C20168

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/97

### **ABSTRACT**

**PURPOSE:** This project involves a 5-year series of studies that will investigate the extent to which age of peers influences the development of social skills among preschoolers with disabilities.

**METHOD:** In the first 2 project years, 80 3- and 4-year-olds with mild disabilities will be paired with four different play partners for two play sessions each. Sessions will be analyzed for level, complexity, and nature of social interactions. The second series of studies will examine whether or not repeated opportunities for dyadic play with a younger child improve generalized social skills of 4-year-old children with disabilities, as has been observed to be the case with nondisabled children with low rates of social interaction. Thirty 4-year-olds with mild disabilities will be randomly assigned to dyadic play with a same-age peer, dyadic play with a younger child, or a control group.

**ANTICIPATED PRODUCTS:** These studies will increase understanding of how peers influence social interactions of young children with disabilities. Important information on the need to consider peer characteristics when designing early intervention programs to promote social competence will result. Project findings will be disseminated through journal publications, presentations at conferences, and development of guidelines for teachers in child care settings serving young children with disabilities.

## **The Effect of Flexed Positioning on Positive and Movement of Premature Infants**

GRANT NUMBER: H023B30003

BEGINNING DATE: 8/01/93

ENDING DATE: 1/31/95

### **ABSTRACT**

**PURPOSE:** This study will follow 10 premature infants involved in a formal flexed positioning program to monitor the effects of positioning on their ability to actively achieve flexion in prone positions and in their kicking patterns.

**METHOD:** The 10 subject premature infants and 10 premature infants not participating in the program will be monitored during their hospitalization in the neonatal intensive care unit to determine their ability to assume a flexed posture when placed in a prone position. Each infant will be videotaped every third day from 32 weeks of gestation to discharge, in addition to having their kicking patterns videotaped and analyzed. Specific kinematic variables will be compared between subject groups through the use of the PEAK performance motion analysis system.

**PRINCIPAL INVESTIGATOR:**

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**ANTICIPATED PRODUCTS:** The study will provide information on prevention of nursery-acquired differences in motor development, which may eventually serve as early indicators of delayed development or motor dysfunction. Promoting flexion postures during the first weeks of life may also prevent long-term effects on childrens' motor development.

### **Parent-Child Interaction Systems: A Long-Term Evaluation**

**PRINCIPAL INVESTIGATOR:**

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Center for Persons with  
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GRANT NUMBER: H023N30028

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

#### **ABSTRACT**

**PURPOSE:** This project will use an existing parent-child interaction data set to improve the usefulness of parent-child interaction scoring systems and to further the knowledge of the nature and effects of the mother-child interaction.

**METHOD:** In addition to identifying parent and child behaviors that correlate with measures of child development, research will identify parent and child characteristics and parents' perceptions of stress, social support, and resources that best correlate with parent interaction behaviors. After the existing data set has been coded to measure both mother and child behavioral dimensions in order to examine the bidirectionality of the interaction, a number of analyses will be performed including: a factor analysis to determine factor structures of all relevant systems, analyses to demonstrate criterion and predictive validity, and analyses to establish the relationship between the variables set forth in project objectives. The stability and change within dyads of parent-child interaction will further be examined over time.

**ANTICIPATED PRODUCTS:** By establishing criterion-related and predictive validity of coding systems employed, staff will enable clinicians, practitioners, and researchers to better choose and employ the coding system best suited to their needs. A monograph will be produced by project staff and consultants during the final year. Summaries of findings will be disseminated through a newsletter and computer bulletin boards.

### **An Exploratory Study of Preschool Environments**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023B30050

BEGINNING DATE: 1/01/93

ENDING DATE: 9/30/94

#### **ABSTRACT**

**PURPOSE:** This project will describe three preschool classrooms whose staff indicates that they employ either developmentally appropriate practice (DAP), activity-based intervention (ABI), or direct instruction (DI).

**METHOD:** An ecological approach will be employed to describe these classrooms using a momentary time-sampling observational system called the Eco-Behavioral System of Complex Preschool Environments. Twelve subjects

will be chosen from children with developmental disabilities, 24 to 48 months of age, enrolled in each preschool classroom. Data analysis will include descriptive information that will define the environments according to multiple ecological variables including environmental arrangement, teacher behavior, and child behavior. In addition, analysis using conditional probabilities will identify complex interrelationships within and between environments.

**ANTICIPATED PRODUCTS:** This information will assist in providing a foundation for procedural validity of the three approaches. With an understanding of the ecological makeup of each curricular approach, families and professionals may be better able to make informed placement decisions for young children with special needs.

### **An Analysis of the Effectiveness of Staffing Patterns for Young Children Attending Natural Group Environments for Early Intervention**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30072

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

#### **ABSTRACT**

**PURPOSE:** This project will examine the effects of different service delivery structures on the development of toddler-age children with disabilities (and their families) receiving early intervention within natural group environments.

**METHOD:** The study will compare four different service delivery structures within natural group settings with toddler-age children with disabilities receiving services under the Department of Mental Retardation. Children will be assigned staff and services through the Individualized Family Service Plan (IFSP) process. The four service delivery structures to be evaluated will include: (1) a full-time teacher within the group environment the entire time the child attends and therapy (as needed) delivered within the group environment; (2) a full-time teacher within the group environment the entire time the child attends and therapy delivered (as needed) outside the natural group environment; (3) a teacher attending the natural group environment at least once a week for consulting purposes and therapy delivered (as needed) within the natural group environment; and (4) a teacher attending the natural group environment at least one time a week for consulting purposes and therapy delivered outside the natural environment. Evaluation of these service structures will occur on a 3-month basis during a 12-month enrollment period for each child.

**ANTICIPATED PRODUCTS:** The project will expand the current knowledge base on the effects of receiving early intervention in natural group environments in a number of ways. Findings will be presented at state, local, and national conferences, and articles and descriptions of service delivery practices will be prepared for journals and newsletters. Research monographs will be generated on methodology and findings, and training manuals will be prepared on service delivery practices found to be effective.

## **Teaching Vocabulary Comprehension Concepts in Preschool Physical Education to Children with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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and Special Education  
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GRANT NUMBER: H023B20009

BEGINNING DATE: 9/01/92

ENDING DATE: 8/31/95

### **ABSTRACT**

**PURPOSE:** This study will teach selected vocabulary concepts within a physical education setting to preschool children with impairments in cognitive, motor, social, and/or communication development.

**METHOD:** The program will facilitate understanding of cognitive concepts by emphasizing comprehension concepts within the context of a 12-week motor skills intervention. Children aged 3-6 from three populations will participate, including preschool children receiving special education, children in Head Start, and typically-developing preschoolers. Students will be randomly assigned to either of two conditions: (a) a motor skills intervention with emphasis on vocabulary concepts in which instructional activities will be designed to emphasize selected comprehension concepts; and (b) a control group consisting of a motor skills intervention with similar physical education lessons but no specific focus on comprehension. While lessons will be presented in a group, pre-, post- and follow-up testing will be done in an individual setting, and test data will be combined with videotaping of lessons sessions for the evaluation stage.

**ANTICIPATED PRODUCTS:** An instructional model will result that can be used in other curricular activities to further enhance the education of preschool children with disabilities. Since children from three populations have been included and interventions have been designed to be consistent with existing physical education curricula, results should both have wide implications and be relatively easy for other teachers and schools to adopt.

## **Family Functioning in Families of Children with Disabilities: An Intensive Psychometric Investigation of Five Family Measures**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30055

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This project will conduct a full psychometric assessment of five of the most widely used measures of family functioning for families of children with disabilities: the Parenting Stress Index, the Family Adaptability and Cohesion Evaluation Scales, the Family Resource Scale, the Family Support Scale, and the Family Inventory of Life Events and Changes.

**METHOD:** Data for this study are drawn from the Early Intervention Research Institute's longitudinal studies, including a data set of 993 children and their families who are participating in several different types of intervention programs

and represent a wide variety of demographic characteristics, types and severity of disabling conditions, and geographic locations across the country. Methodologies used to analyze these data comprise a thorough means of establishing the three main indices of test usefulness laid down by the Standards for Educational and Psychological Testing.

**ANTICIPATED PRODUCTS:** Results of these analyses will provide future researchers and clinicians with additional psychometric information necessary for appropriate and ethical use of these measures. This information will impact both family assessment strategies and efforts to evaluate current early intervention programs.

### **Efficacy of Early Intervention: Long-Term Effects**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C00062

BEGINNING DATE: 10/01/90

ENDING DATE: 9/30/95

#### **ABSTRACT**

**PURPOSE:** This project will assess long-term effects of early intervention with a group of 750 infants and toddlers who had been identified as retarded and developmentally at risk and who participated in the Family, Infant, and Preschool Program (FIPP) in Morganton, North Carolina, from July 1, 1972, to July 1, 1988; these children are now between 10-15 years old.

**METHOD:** The project will employ a conceptual framework and analytic methodology that permits both a more explicit definition of efficacy and the adoption of a paradigm that allows the identification of the determinants of behavior change.

**ANTICIPATED PRODUCTS:** The research will produce a database containing the following types of information: defined variables related to the effects of early intervention and findings that could be used for policy and placement decisions. Other outcomes will be a monograph summarizing the research, presentations at conferences, and publications in newsletters and journals.

### **Differential Characteristics and Effects of Family-Oriented Approaches to Early Intervention**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159A30005

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/95

#### **ABSTRACT**

**PURPOSE:** This project will operationally differentiate among at least three family-oriented approaches to early intervention, and will relate different family-oriented early intervention approaches to differences in child, parent, and family functioning.

**METHOD:** Two studies will be conducted over a 2-year period. The first study will focus on the characteristics that differentiate among programs with respect to family-oriented approaches to early intervention and the effects related

to the different approaches. The second study will be an in-depth investigation of a subsample of programs in which interviews, case studies, and other quantitative and qualitative methods of data collection and analysis are employed to discern the relationships found in the first study.

**ANTICIPATED PRODUCTS:** Journal and chapter articles detailing study findings will be published, and presentations will be made at national, state, and local conferences. Articles of interest to early interventionists and parents will be published, and study results will be disseminated through ERIC and other national clearinghouses.

## **A Longitudinal Study of Developmental Patterns of Children Who Are Visually Impaired**

**PRINCIPAL INVESTIGATOR:**  
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Division of Special Education  
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303-351-2691

GRANT NUMBER: H023C10188  
BEGINNING DATE: 6/01/92

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This study will examine the sequence and rate of development of children, ages birth to six, who are blind or visually impaired. Measures of visual acuity, behavior, temperament, and environment will be obtained in an effort to determine first, if there are differences between development of blind and sighted children and if there are, what variables might be identified as predictors or correlates to development.

**METHOD:** This longitudinal study will be accomplished through a collaborative effort of Teachers College, Columbia University, and a national consortium of six service providers that will be established to cooperate in the collection of data. An assessment battery will be selected by the project Technical Advisory Committee, which will cross the three domains of child variables (such as developmental quotient, visual acuity, and health status), family variables (such as socioeconomic status, demographics, and mother-child interaction), and program variables (such as home vs. hospital, support services, and curriculum). Project staff will conduct training of two project evaluators from each participating program who will collect data in their programs. Subjects will be children with visual disabilities who are referred to and served by the programs participating in this study; it is foreseen that the study will include a sample size of 300 children per 1-year cohort. Yearly analyses will be conducted of the regarding patterns emerging in the three sets of variables, their interaction, and their influence on child competence and family adaptation. The normative data collected in this study will be analyzed by measures of central tendency, factor analysis, and discriminant analysis.

**ANTICIPATED PRODUCTS:** Annual data will be pooled with previous data and reported to the field by means of project reports. Dissemination efforts will include these annual reports, journal articles, and a final report.



**PRINCIPAL INVESTIGATOR:**

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## Early Intervention Benefit/Cost Longitudinal Study

GRANT NUMBER: H023C20066

BEGINNING DATE: 7/01/92

ENDING DATE: 6/30/97

### ABSTRACT

**PURPOSE:** This project will provide credible evidence on the benefits and costs of early intervention programs, including programs that vary by intensity, the degree of parent involvement, and age at start.

**METHOD:** Data will be examined from a benefit-cost follow-up study of 430 children with a variety of disabilities including visual impairments, intraventricular hemorrhage, medical fragility, and others who received early intervention from the Early Intervention Research Institute from 1985-1990. Subjects were randomly assigned to control and experimental groups where both groups of children received treatment. Experimental treatment either began earlier, was more intensive, added a parental involvement component in addition to the control services. By following both groups of students longitudinally, the study will estimate benefits to families and society that result from the early intervention received.

**ANTICIPATED PRODUCTS:** By comparing dollars spent with dollars saved, this project will provide a perspective previously unavailable in the field of early intervention for children with disabilities and will help to answer questions regarding which early intervention programs serve children and the community best.

## Prevention of Antisocial Behavior Patterns Among Children Grades K-3

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237B20024

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/96

### ABSTRACT

**PURPOSE:** This project will develop, evaluate, and disseminate a model program for the early identification and primary prevention of conduct disorders and antisocial behavior patterns in kindergarten-level children.

**METHOD:** The project will consist of four phases of approximately 1-year's duration each, as follows: (1) Feasibility Study; (2) Intervention and Longitudinal Tracking; (3) Replication and Longitudinal Tracking; and (4) Longitudinal Tracking and Follow-up. The model intervention program to be developed will have a dual focus on direct child intervention and family support and intervention. A state of the art early intervention program will be developed for delivery by school-based consultants and a model family support component will also be developed focusing on: (a) improving target parents' effective parenting practice and (b) accessing needed services available from community and state social service agencies.

**ANTICIPATED PRODUCTS:** The components of this model program will be packaged in year 4 and selected key school district staffs in the state of Oregon will be trained in them. The final package will be broadly disseminated to the field and

made available to professionals for the cost of reproduction and mailing. Training and technical assistance to potential model program adopters will be negotiated as appropriate with interested school districts and programs.

## **Programming Integration of Preschoolers (Project PIP): Developing Peer Relationships Between Children With and Without Developmental Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C10167

BEGINNING DATE: 7/01/91

ENDING DATE: 6/30/96

### **ABSTRACT**

**PURPOSE:** This study will investigate the effects of interventions designed to enhance social-communicative interaction among preschoolers with developmental disabilities.

**METHOD:** At least 40 preschoolers with developmental disabilities and an equal number of classmates who are not disabled will participate. Exchange theory will be applied to analyzing interaction patterns and to generating strategies for modifying interaction patterns to produce more acceptable outcomes for social partners and lessen the desire to terminate interactions and relationships. Some basic characteristics of peer-mediated intervention tactics will be modified, such as spreading interventions across the day, rather than conducting concentrated training sessions. Interventions will involve: (1) teaching typical peers to use ecobehaviorally-derived strategies for interaction with their disabled classmates; (2) teaching fundamental social skills to children with disabilities; and (3) a treatment package based on the functional components of these interventions. In addition, longitudinal effects will be monitored and investigations of intervention components that appear necessary to ensure that children with disabilities continue to interact with typical classmates and develop peer relationships in subsequent educational placements will be conducted. Single-subject experimental designs will be used to evaluate outcomes. The effects of intervention will be assessed with observational, sociometric, and teacher and parent rating measures. In addition to analyses of changes in the rates of social behavior demonstrated by children, conditional probability analyses of sequential data will be used to continue the process of identifying strategies that prove particularly effective in promoting sustained interaction.

**ANTICIPATED PRODUCTS:** The experimental procedures developed and validated in the studies will form the basis for two training manuals on: (1) daily intervention to promote constructive social-communicative interaction in integrated preschools, and (2) facilitating social adaptation of children with disabilities during transitions from preschool. Dissemination efforts will include publication of training manuals, research papers, papers focusing on the clinical procedures, and training workshops for practitioners.



## **Longitudinal Assessment of Emerging Behavior State Patterns Among Infants and Children with Severe and Profound Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30029

BEGINNING DATE: 8/01/93

ENDING DATE: 7/31/98

### **ABSTRACT**

**PURPOSE:** This project will systematically investigate changes in state during the first few months and years of life, and will identify variables and conditions that potentially impact the emergence of various state organization patterns.

**METHOD:** A longitudinal research design will measure state behavior across early months and years of life among 25 infants at high risk for profound and severe disabilities. Additionally, a General Systems Theory approach will be adopted to investigate the process of emerging state patterns in relation to other interacting variables such as: levels of cognitive, motor, and social development; quality and frequency of rhythmic patterns; communicative skills; social interactions with caregivers; and medical interventions and health status.

**ANTICIPATED PRODUCTS:** Results of this research will provide intervention programs with important information for assisting in the development of more stable and adaptive state patterns in persons with profound and multiple disabilities. Findings from the project will have additional implications for the assessment and treatment of traumatic brain injury, and the behavioral changes and physical losses associated with aging.

## **The Impact of Federal Policy and Resulting Legislation on Family Systems**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C10103

BEGINNING DATE: 12/15/91

ENDING DATE: 12/14/96

### **ABSTRACT**

**PURPOSE:** This project will study how early intervention provided to infants and toddlers impacts families, and specifically, how families perceive these services. The study will examine three assumptions: (1) families need and welcome these services and supports; (2) early interventionists know how to validly assess family needs and develop programs to meet them; and (3) these services will enhance the developmental potential of infants and toddlers who are disabled or at risk.

**METHOD:** Researchers will collaborate with the University of Oklahoma Medical Center in the early identification of approximately 36 families of neonates who are at significant risk due to genetic/congenital conditions, birth trauma or prematurity, and/or combinations of maternal risk factors (e.g. age, substance abuse, AIDS, etc.). Over a 5-year period, qualitative methodologies will be used to probe the perceptions and experiences of parents (and when

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appropriate, siblings) of infants, toddlers, and preschoolers. Twelve families will be identified in year 1 and followed over 3 years. Twelve new families will be added each of the first 3 years. A total of three intensive, audiotaped interviews will be conducted per year for each family, including interviews conducted with a significant other outside the family, but involved in the family system in order to triangulate the data collected. The first interview will be designed to probe the issues of: (1) initial communications with professionals from a variety of disciplines; (2) transitions from hospital to home; (3) contacts from and referrals to additional services and resources; (4) realizations and adjustments to the infant's needs; (5) self-perceptions and coping; and (6) perceptions of assistance received from professionals and interpersonal networks. Follow-up interviews will further document the nature of services, supports, and/or resources provided to or sought by the families.

**ANTICIPATED PRODUCTS:** Products will include five annual research reports, a final monograph, book, and field guidelines for parent involvement in early intervention.

**Effects of Parents' Commenting When Reading to  
Their Children with Developmental Disabilities**

GRANT NUMBER: H023B30013

BEGINNING DATE: 9/01/93

ENDING DATE: 11/30/95

**ABSTRACT**

**PURPOSE:** This study will determine if training parents to comment while reading to their children with developmental disabilities can increase communicative interaction in parent-child dyads.

**METHOD:** Six children with developmental disabilities and their parents will participate, with an emphasis on inclusion of parents and children of low socioeconomic status. Parents will be taught to comment on the literary content of a book in a way that relates events and characters in the story to the child's own experiences. A multiple baseline across subjects with an embedded withdrawal design will be utilized to evaluate effects of intervention on parent-child interactions.

**ANTICIPATED PRODUCTS:** Intervention is expected to result in increased responses by the children to parents' comments, more frequent initiation of comments by children, and more frequent responses to children's initiations by parents. In addition to the basic bedtime reading context, generalization to parent-child interactions in play settings will also be examined. These changes in interaction patterns during book reading are expected to provide improved opportunities for language learning and language use by children with developmental disabilities, as well as increased exposure to early literary experiences.

## **A Longitudinal Follow-up of Graduates from Two Contrasting Preschool Instructional Models: Phase 2**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30007

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/94

### **ABSTRACT**

**PURPOSE:** This project will study the lasting effects of two approaches to preschool education as well as the course of development of preschool graduates as they progress from childhood to adolescence, passing through two critical school transition periods.

**METHOD:** The subjects of the study will be 197 elementary and middle school children who qualified for special education and participated in a previous preschool intervention study. These children, who have mild to moderate delays in cognitive and language skills, received either an academically-based Direct Instruction model or a cognitively based Mediated Learning model for between 1 and 3 years of intervention. Subjects will be followed through another 5 years of schooling and the associated transitions. Evaluation instruments will include a variety of cognitive, academic, social, adjustment, school placement, and employment measures. Data analysis will vary according to the research question addressed, and include repeated measures analysis of variance, multiple regression, survival analysis, and growth curve analysis techniques.

**ANTICIPATED PRODUCTS:** The project will generate much-needed information on: the ability to match instructional programs to students; long-term effects of numerous models for early intervention, with some retrospective information on children's readiness to learn as a result of either model; the key period in school when children with developmental delays are at risk for difficulty, or ready to experience a developmental growth spurt; the relationship and mechanisms between early cognitive and linguistic functioning and later skill development; and validity of initial judgments of risk based on early assessments.

## **A Feasibility Study for an Evaluation of Part H Outcomes**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159F30008

BEGINNING DATE: 1/10/94

ENDING DATE: 12/30/94

### **ABSTRACT**

**PURPOSE:** This study will investigate the parameters of a future evaluation of Part H outcomes, specifically addressing the questions of what happens to children who "age out" of Part H services, and what later services they achieve.

**METHOD:** Three separate investigations will be performed as follows: (1) project staff will attempt to document services provided to each child and his/her family since exiting Part H by contacting programs, medical home, and/or families; and (2) project staff will attempt to locate the results of developmental

assessments post-part H; and (3) cost per child to obtain records for the sample children using identifying information in the child's part H file, recording amount and type of educational/developmental information. Stage 2 will consist of pilot tests of the methodology for the three investigations. The pilot study will provide information regarding the best follow-up strategies for all investigations. Samples will be stratified on dimensions of urban/rural population, exit/transition information, and time elapsed since exit.

**ANTICIPATED PRODUCTS:** Results of each pilot study will be summarized in a report to the advisory committee and the HEICC. Following the completion of the pilot studies, an evaluation design will be finalized. The design will consider statistical and observational results of the pilot studies, advisory group and stakeholder input, best practices in educational evaluation, and available funding resources.

### **Facilitation of Intersubjectivity to Remediate Language Delay of Preschool Children with Mental Retardation**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20077

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/96

#### **ABSTRACT**

**PURPOSE:** This 4-year project will investigate the effectiveness of interventions to facilitate language development of toddlers and preschoolers with mental retardation. The premise underlying the six studies in the project is that intersubjectivity must be established in order for the child with disabilities to utilize the verbal and nonverbal information from others with whom he or she interacts. The project will describe and test experimental efforts to facilitate the establishment of joint referential states for communicative exchanges.

**METHOD:** The studies will examine both descriptively and experimentally the integration of cognitive, affective, social, communicative, and language skills during the first 5 years of life. In Study 1, extant videotapes from at least 200 mother and infant dyads (infants ranging in mental age from 10-18 months) will be coded in real time to indicate their attentional state vis-a-vis both objects and their mothers. The development of joint attentional state will be described from this cross-sectional sample of young children in comparison to published reports on normally developing children. Seventy-six children will be involved in the remaining five longitudinal experimental studies. Studies 2, 3, and 4 will utilize prototypic interactive computer games for sensorimotor skills and storybooks as one context to compare to more typical dyadic play and storybook contexts in terms of the establishment of joint reference and communication. In Study 2, teachers will attempt to establish joint reference with young children with disabilities in the context of an object permanence computer game ("Find the Bunny") or during play with mechanical toys. Study 3 will be a replication of Study 2 except that parents and their children with disabilities will be involved. Ongoing analysis of videotapes of teaching sessions will provide the empirical basis for suggestions about ways to facilitate joint attention and communication within these contexts. A computer-controlled videotape analysis system will be

used with both keyboard and voice input to expedite the tape rating and feedback process. In Study 4, parents will be provided with interactive, computerized storybooks or regular storybooks to examine the utility of reading activities as joint referential and communication contexts. Study 5 will broaden the study to establishment of joint reference and language production in a small group setting (3 children, 1 teacher) in which simple play scripts are enacted (e.g., snack time, putting a baby to bed). Half of the children will be involved in a small group with one child who does not have disabilities and half will be in contexts including only children with disabilities. In Study 6 the investigation of interventions to facilitate joint referential states and language production will be conducted in large group free play situations in a structured classroom that is integrated with children who do not have disabilities or in one that includes only children with disabilities. An intensive collection of data on language use and sensorimotor skills will ensure comparability across the 276 subjects involved in these cross-sectional and longitudinal studies.

**ANTICIPATED PRODUCTS:** In addition to the findings from the studies, an outcome of the project will be the development of an observational technology from which complex social process descriptions can be completed, analyzed, and used as the basis for suggestions on how to modify interactions with young children with disabilities. The studies will provide evidence about the relative effectiveness of new language intervention techniques for early childhood special educators who work with children who have both developmental and language delays.

## **The Generalized Effects of Early Language Intervention**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C10031

BEGINNING DATE: 8/01/91

ENDING DATE: 7/31/94

### **ABSTRACT**

**PURPOSE:** This project deals with early naturalistic language intervention and seeks to analyze the generalized effects of milieu teaching on preschool children's communication skills.

**METHOD:** A series of studies will provide a multicomponent analysis of the changes in the linguistic and pragmatic aspects of communication by young children during intensive early language intervention. Subjects will be preschool children selected according to the following criteria: (1) productive language skills in the 18- to 30-month range; (2) evidence of at least a 6-month receptive delay and a 12-month productive delay; (3) productive use of at least 10 spoken words; (4) normal hearing; (5) tested IQ scores indicating mild to moderate mental retardation; and (6) parental consent. Study 1 will involve 9 children to achieve the following purposes: (1) analyze primary effects of milieu teaching during training and maintenance; (2) assess stimulus class, recombinaory, and cross-modal generalization; and (3) assess generalization across persons and settings with three different conversational partners (teachers, parents, peers). Study 2 will involve 6 children to determine the extent to which training significant

others (teachers, peers, and parents) can increase the generalization resulting from enhanced milieu teaching and improve the social-communication interactions between young children with disabilities and their significant others. Study 3 will involve 6 children and will contrast the effects of direct milieu teaching by conversational partners with those found when milieu teaching was followed by training conversational partners to facilitate functional communication (Study 2).

**ANTICIPATED PRODUCTS:** Results of the studies will be disseminated at regional and national conferences and through journal publication. Based on procedures and results from the studies, project staff will provide consultation to local early childhood special educators designing programs for individual children.

### **An Exceptional Analysis of Teacher/Parent Mediated Interventions for Preschoolers with Behavioral Problems**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20172

BEGINNING DATE: 9/01/92

ENDING DATE: 8/31/97

#### **ABSTRACT**

**PURPOSE:** This research project will empirically investigate the efficacy of an expanded intervention approach involving behavioral consultation with parents and teachers of preschool children who are at risk for social-emotional difficulties.

**METHOD:** Children experiencing social withdrawal and isolation and children experiencing conduct difficulties will be identified, treated, and monitored for approximately 3 to 5 years, from preschool through early elementary school transitions. Screening procedures and teacher referrals will identify 120 3-5-year olds in Head Start programs. Children selected for the project will be assigned randomly to experimental and control conditions. In the experimental group, children will be further assigned randomly to baselines in a multiple baseline design. Consultants trained in behavioral consultation will work with parents and teachers to deliver a treatment package either for social withdrawal or for conduct disorders. Treatment programs will include social skills interventions supplemented with parent and teacher behavior management strategies. Consultants will also monitor students' progress as they make the transition into elementary school.

**ANTICIPATED PRODUCTS:** In the area of practice, proposed products will include: (1) treatment packages for socially withdrawn and mildly conduct disordered preschool students; (2) treatment integrity checklists and rating scales for monitoring the implementation of specific treatments and (3) the roots of an effective preschool consultation and intervention model put in place in a county Head Start organization. Contributions to research will contribute to the understanding of effects of conjoint behavioral consultation with teachers and parents.



## Investigations of Early Motor Intervention Procedures

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30127

BEGINNING DATE: 9/01/91

ENDING DATE: 8/30/96

### ABSTRACT

**PURPOSE:** This project will investigate the relative effectiveness of two motor intervention approaches for children with Down syndrome and children with cerebral palsy: the Neurodevelopmental Therapy (NDT) approach and the Peabody Developmental Motor Program (PDM).

**METHOD:** Interventions will be conducted with 60 children with Down syndrome and 60 children with cerebral palsy (ages 6 to 12 months at the beginning of the study) during the first 3 years of their lives. Subjects will come from approximately 12 different sites from the southeastern portion of the United States, each of which provides only one of the two treatment models being investigated. Treatments will be administered by the regular interventionists at these sites, who have been trained to proficiency in the model they are required to implement. The study is based on a pre-post multifactorial design that will assess the relative contribution of several variables to two major outcomes of intervention services: (1) the level of family involvement with their child after 12 and 24 months of services, and (2) the fine and gross motor gains that the children have attained after 12 and 24 months of intervention. Four factors will be used to assess family involvement in the child's intervention program, including the amount of time that primary caregivers engage in therapeutic motor exercises with their child, and the style of the primary parent/caregiver during interacting with the child. Both quantitative and qualitative procedures will be used to assess motor outcomes that children attain. In addition, the study will determine whether the effects of these curricula are replicable across sites. A cost benefits analysis will examine the magnitude of motor gains that children attain in motor intervention programs as a function of the monetary and family resource expenditures that are required to produce these gains.

**ANTICIPATED PRODUCTS:** Dissemination activities will include a technical report to be advertised for distribution after 12 months of intervention data, state and national conference presentations, and journal articles.

## **Prenatal Cocaine Exposure and Social Development of Young Children: A Field-Initiated Research Project**

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GRANT NUMBER: H023C10092

BEGINNING DATE: 9/01/91

ENDING DATE: 8/30/96

### **ABSTRACT**

**PURPOSE:** This project will conduct a 5-year program of descriptive and intervention-based research that increases both knowledge regarding social and other developmental outcomes for young children exposed prenatally to cocaine and resources for providing early intervention to this group.

**METHOD:** Subjects for all studies will be infants and young children (6 months to 6 years of age) who were exposed to cocaine prenatally and for Study 1, the longitudinal study, only non-exposed matched controls. Cocaine-exposed children will be recruited primarily by contacting mothers served by the Mother Baby Chemical Health Program of Group Health, Inc., in the Minneapolis-St. Paul metropolitan area. Throughout the seven studies, specific instruments have been selected to provide three different types of measures of the social development of children exposed prenatally to cocaine: (1) a general, performance-based outcome measure of social competence; (2) measures of the type, quantity, and quality of social interactions in home and care/school settings; and (3) direct assessment of other aspects of the child's development. Study 1, involving 50 drug-exposed children and 50 nonexposed matched controls, will consist of a 5-year, longitudinal descriptive analysis of social and other developmental outcomes. Four experimental studies (focusing in turn on environmental arrangements, teacher-mediated interventions, affection training activities, and parent training to promote social interaction competence) will each produce a set of empirically valid intervention procedures. In the final 2 years of the project, these separate intervention procedures will be combined into a comprehensive treatment package, and the effects of this package will be evaluated for both short- and long-term effects on the social interaction of young children. Data analysis will include ANOVAs and MANOVAs, and multiple baseline across subjects designs for the intervention studies.

**ANTICIPATED PRODUCTS:** Dissemination activities will be directed at early intervention personnel and researchers and will include journal articles, conference presentations, training materials, and teacher manuals.



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## **Maternal Directness and its Relation to the Language Development of Children with Down Syndrome**

GRANT NUMBER: H023B30049

BEGINNING DATE: 6/01/93

ENDING DATE: 11/30/94

### **ABSTRACT**

**PURPOSE:** The study will explore the relationship of maternal style to the language development of infants with Down syndrome over a 12-month period.

**METHOD:** The project will be based on an existing sample for which a number of measures have already been gathered. The sample consists of 42 children with Down syndrome between the ages of 13 to 41 months and 26 normally-developing children matched on mental age and verbal ability. The two groups have been videotaped in a 5-minute mother-child free play episode. Language scores were measured at the beginning of data collection and again 12 months later. This study will combine the previously unanalyzed mother-child free play measures with language measures to identify aspects of maternal style that can be associated with language gains. Children within groups will be divided into low and high mental age groups to explore differences in maternal behavior related to developmental status.

**ANTICIPATED PRODUCTS:** Results from this study will provide information regarding the facilitative influence of specific aspects of maternal style on the language development of children with Down syndrome. Findings will be presented at conferences and through publication in professional journals.

## **Maternal Responsibility and Child Competency in Deaf and Hearing Children**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C10077

BEGINNING DATE: 7/01/91

ENDING DATE: 6/30/94

### **ABSTRACT**

**PURPOSE:** The project will examine the relationship between characteristics of maternal responsibility and the impact those characteristics have on the competency level of deaf and hearing children.

**METHOD:** To achieve project goals, data will be collected from: (1) face-to-face interactions between 6- and 9-month-old infants and their mothers; (2) communication/joint attention strategies observed during a free play situation at 9-, 12-, and 18-months; (3) maternal instructional style and responsiveness to infant attention during a structured teaching task at 18-months; and (4) assessments of infant communicative, social, and cognitive performance at 3 years. Comparisons will be made among four combinations of hearing and deaf mothers with either hearing or deaf infants and will be based on videotapes and coding systems previously developed. The research results will describe

the dynamics of parental interactions with both deaf and hearing infants and parents, which will be useful in developing guidelines and recommendations for professionals in the field of early intervention and for parents of deaf children.

**ANTICIPATED PRODUCTS:** The project will disseminate a research monograph based on the final report, a book providing practical information for a nonresearch-oriented population, several chapters and articles, presentations at conferences, and direct inservice training to service providers.

### **Assessment of the Behavior of Infants Born at Varying Gestational Ages**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023B30054

BEGINNING DATE: 5/15/93

ENDING DATE: 12/30/94

### **ABSTRACT**

**PURPOSE:** This project will investigate differences in behavioral competence and patterns of self-regulation in infants to determine differences that may be due to varying gestational ages at birth.

**METHOD:** The study will involve three cohorts of healthy infants born at 32, 36, and 40 weeks gestational age, who will be given one behavioral assessment at 10 to 14 days of age. Testing will yield data on autonomic, motor, state, attentional-interaction, and self-regulatory subsystems. Analysis will involve identifying behavioral patterns that are characteristic of infants within a gestational age group as well as comparing how those patterns change across gestational age groups.

**ANTICIPATED PRODUCTS:** Study findings will provide a clearer understanding of what is to be expected behaviorally of infants of varying gestational ages, and will assess patterns of behavioral change with increasing gestational age. Theoretically, findings will also be useful in testing tenets of the Synactive Theory of Development. Standardization of the behavior test to be used will also begin with findings from this study.

## **Transition Reactions of Families Whose Children Move from Infant Intervention Programs to Preschool Intervention Programs**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30111

BEGINNING DATE: 10/01/93

ENDING DATE: 3/31/95

### **ABSTRACT**

**PURPOSE:** This project will study the reaction of families as they are exposed to the transition of their infants from an infant intervention program to a preschool intervention program.

**METHOD:** Using a repeated measures design, and a combined interview-questionnaire methodology, researchers will assess the transition reaction at 6 months, at 1 month prior to transition, and at 1 month after transition. The study will focus specifically on what parents perceive as stressful about the transition, what they believe is helpful to relieve that stress, what intervention staff perceive about parents, and perceived needs of intervention staff during the transition process. The investigation will look for patterns in transition responses over time. Also using a regression design, researchers will investigate what variables might affect the transition response.

**ANTICIPATED PRODUCTS:** Findings are expected to have a direct impact on infant and preschool intervention programs in planning for the transition of children with developmental disabilities. Commonalities as well as differences in families' transition reactions will be studied, as will staff reactions about how to best assist families. A methodology for interaction will result.

## **Evaluating Ohio's I HSAP 1990-1993**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159F30005

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will determine the best method to evaluate the Ohio Infant Hearing Screening and Assessment Program.

**METHOD:** A comparison will be made between a retrospective study (including exploring potential sources of information, obtaining information about children with hearing impairments, and comparing this information with that collected by IHSAP), and a prospective study (including enrolling infants at birth to represent those who pass the questionnaire, those who fail the questionnaire but pass the assessment, and those who fail both; and following them to determine problems with tracking, ages at which hearing loss is confirmed, age of enrollment into habilitative services, etc.).

**ANTICIPATED PRODUCTS:** The Ohio Department of Health will publish and disseminate reports of the study in professional journals in fields such as audiology, special education, medicine, early childhood, and early intervention.

The information will also be presented at national conferences, and the ODH will work with the National Early Childhood Technical Assistance System to promulgate the results to groups requesting assistance.

## **An Evaluation of Family-Centered, Coordinated Part H Services in North Carolina**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159A20007

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will: (1) describe the status of the implementation of family-centered services and local interagency service coordination; (2) identify enablers and barriers to family-centered and coordinated service delivery; (3) utilize the data from this study to improve policies and practices; and (4) develop new instruments and utilize existing instruments for the purpose of state-wide evaluation.

**METHOD:** The statewide evaluation study is divided into two substudies, one focusing on the extent of family-centered service delivery and one examining the extent and quality of local interagency service coordination. This study will utilize the diverse perceptions of parents and professionals from all areas of the state. Questionnaires, individual interviews, and focus groups will be utilized to obtain information from parents and service providers. Analysis of two important documents (Individualized Family Service Plans and Local Interagency Agreements) also will be conducted. Existing scales and document analysis procedures will be used when possible.

**ANTICIPATED PRODUCTS:** It is anticipated that this evaluation study will provide information to parents, service providers, policy makers, as well as pre and inservice trainers. With this information, policies can be revised and training provided to improve the functioning of local interagency coordinating councils and practices of service providers from different disciplines and agencies. Findings will be disseminated through publication in scientific journals, presentations at state and national meetings, and the development of monographs or descriptive papers for distribution.

## **An Evaluation of the Impact of North Carolina's Early Childhood Initiative on the Inclusion of Preschoolers with Disabilities and Their Families**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159A30010

BEGINNING DATE: 1/01/94

ENDING DATE: 12/30/95

### **ABSTRACT**

**PURPOSE:** This project will evaluate the impact of North Carolina's early childhood initiative on infants, toddlers, and preschoolers with disabilities and their families who receive early intervention services under Part H or Part B of IDEA.

**METHOD:** The project will focus on 12 community sites across North Carolina to address a fundamental question: What happens to preschool children with disabilities and their families as a function of community early childhood programs developed by the local partnerships? The project will employ a mixed-methods design consisting of both quantitative and qualitative measures to assess the following outcomes: (a) access to inclusive programming for young children with disabilities and their families; (b) the appropriateness and quality of child care arrangements for children with disabilities; (c) the involvement and coordination of agencies providing special services to these children and families; and (d) family participation in community planning and satisfaction with general early childhood services.

**ANTICIPATED PRODUCTS:** Potential findings regarding the relationship among program contexts, processes, and outcomes may prove useful to other states seeking to expand, reorganize, and improve services for all young children and families.

## **Studies of Infants and Toddlers Prenatally Exposed to Cocaine**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30079

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/98

### **ABSTRACT**

**PURPOSE:** This project will investigate the effectiveness of several intervention models for serving infants and toddlers prenatally exposed to cocaine.

**METHOD:** The project will include 3 intervention models: (1) a center-based program that will provide participating children with 25 hours per week of early intervention services with transportation provided; (2) a home program that will provide participants with 3 hours per week of home visits; and (3) a follow-up program that will not include any planned intervention programs. Children in all three groups will receive medical monitoring and developmental assessments. A parallel qualitative research effort will employ a case study methodology to provide a in-depth analysis of all three models. Three further studies will include:

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(1) a comparison of motor intervention models; (2) an investigation of play and language development; and (3) a study of effects of early intervention models on the emergence of nonverbal communication. Costs of intervention models will also be studied.

**ANTICIPATED PRODUCTS:** Expected outcomes of the field-initiated research effort will include definitive knowledge of: the early development of children prenatally exposed to cocaine, the effects of three intervention service models on child outcomes, and the cost effectiveness of the three models.

**Validation and Field Trial of a Multiple Gating Approach  
to Preschool Screening for Behavior Problems**

GRANT NUMBER: H023C30017

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/97

**ABSTRACT**

**PURPOSE:** This research will assess the psychometric characteristics and validity of a multiple gating screening procedure designed to identify at-risk preschool children, ages 3 through 5.

**METHOD:** Researchers have developed a screening system known as Preschool Screening for Behavior Problems (PSBP) that uses multiple gating. Procedures used by PSBP consist of three interrelated stages cross-validating results. Stage one involves preschool teachers ranking students using objective criteria for both externalizing and internalizing behavior dimensions. Children identified in this stage are then targeted for teacher-completed behavior rating measures in the second stage. Students exceeding normative criteria on stage two measures pass this gate and are assessed further on stage three behavioral observation measures. These direct observations will be recorded in the classroom. Six separate studies in the first year will establish the reliability and validity of the PSBP process. In the second year researchers will establish normative databases, cutoff scores, and decision criteria for stage two rating scales and stage three observational measures. In year three the efficacy and social validity of the PSBP will be assessed. The fourth and final project year will focus on disseminating results.

**ANTICIPATED PRODUCTS:** This research will produce systematic, cost-effective procedures and instruments for the early identification of preschool students exhibiting behavioral profiles that put them at risk for more severe behavior disorders. The validated PSBP will be a psychometrically sound, field-tested procedure that can be easily implemented by preschool personnel.

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## Understanding and Improving Long-Term Outcomes for Children with Autism

GRANT NUMBER: H023C30130

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/95

### ABSTRACT

**PURPOSE:** This project will provide a school- and home-based ecobehavioral assessment and subsequent functional analysis of the current status of autistic children 6 to 15 years of age who received comprehensive early intervention services. The investigators will complete a comprehensive school and home portrayal of children who have been away from intervention for 1 to 9 years to find and analyze those events and settings that are associated with important outcomes for these children.

**METHOD:** This 4-year project will involve a two-stage series of studies. During the first 2 years, a school-based ecobehavioral analysis will be conducted on 35 autistic children who were participants in an experimental early intervention program. A variety of measures will be used to assess outcomes such as deviant behavior reduction, cognitive growth, and communicative skill growth. The Code for Instructional Structure and Student Academic Response (CISSAR) will be used to record children's academic, social, and survival skill performance during classroom activities in the following settings: regular class (18 students), autism classes in segregated facility (5 students), and LD/BD resource in regular building (12 students). Study 2, focusing on the same subjects as Study 1, will involve observational measures and interviews to evaluate home-based variables including demographics, adult mental health status, adult stress, and incidence of crises. Study 3 will involve the combination and recombination of various data "chunks" from Studies 1 and 2 to test the fit between existing conceptualizations of long-term outcomes for children with autism and the entire data set on school and family predictors. The structural equation modeling strategy will also permit an analysis of the interdependence between school and family predictors. Based upon the correlational analyses in Studies 1-3, a total of six behavior analytic studies will be conducted involving the three most predictive school and family contemporaneous variables that are subject to experimental manipulation. These six intervention studies will focus on four children (or families) each, and will employ a multiple baseline across subjects design. Cost assessments will be conducted for all six interventions. Expected outcomes for the entire study include a comprehensive listing of historical and contemporaneous school and home variables that are associated with autistic children's follow-up status, and a validated set of school and family-based intervention procedures for improving the follow-up status of children with autism.

**ANTICIPATED PRODUCTS:** Dissemination efforts will include research-based manuscripts, conference presentations, a book, workshops, a brochure, newspaper presentations, and classroom instructional products to be directed at researchers, teachers, parents, administrators, teacher educators, and the general public.



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## Observation Assessment Instrument for the Assessment of Parent-Child Interactions Related to Language

GRANT NUMBER: H023A30099

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

### ABSTRACT

**PURPOSE:** This project will develop a computerized observation assessment instrument to describe parenting interactions as they relate to children's language development.

**METHOD:** Based on the extensive longitudinal database of naturalistic observations describing how children learn to talk, and research in the area of behavioral analysis, project staff will demonstrate the feasibility of developing a computerized instrument that will analyze the language-related interactions very young children have within their homes. The instrument will be designed to reflect the richness of early child-environment interactions as they are temporally related to language development. A software prototype of the instrument will be developed for use on notebook computers to facilitate its use by early intervention researchers and child-language specialists. Two studies will be conducted to establish the psychometric validity and reliability of the proposed instrument.

**ANTICIPATED PRODUCTS:** The proposed instrument will significantly advance the available methodology used for these purposes and will contribute to the design and development of prevention and early intervention programs to facilitate optimal language outcomes.

## Long-Term Follow-Up of Children Participating in Neonatal Hearing Screening Program Using Auditory Brainstorm Response, and Transient Evoked Otoacoustic Emissions

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30069

BEGINNING DATE: 10/01/93

ENDING DATE: 3/13/95

### ABSTRACT

**PURPOSE:** This analysis will provide information about false negative and false positive diagnoses from a large representative sample of infants who participated in newborn hearing screening.

**METHOD:** The following data already collected and archived by other projects will be used: (a) ABR and TEOAE screening results for over 3,000 infants; and (b) determination of hearing status for these same infants 3-4 years later. Agencies responsible for collecting these data have agreed to the combination of the data in order to determine the sensitivity and specificity of the two screening techniques. Once the two data sets have been combined, analyses will be



straightforward, and computation of sensitivity and specificity ratios will be done based on the initial screening results compared to the final hearing status.

**ANTICIPATED PRODUCTS:** No specific products are planned for development, but data gathered will provide important information about false negative rates of both techniques. Combined with data on numbers of children who are hard of hearing using each technique and the cost of such screening, definitive recommendations about the most effective techniques for newborn hearing screening will be possible.

## **Generalized, Transitional, and Longitudinal Effects of Prelinguistic Communication Intervention**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20152

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/97

### **ABSTRACT**

**PURPOSE:** This project will investigate effects of prelinguistic communication intervention on: (a) children's generalized prelinguistic communication skills; (b) parents' use of behaviors that facilitate children's language development; and (c) children's language development and linguistic communication.

**METHOD:** Sixty children with communication delays who are at risk for related disabilities will be seen five times over a 2 year period. Half of the subjects will serve as a contrast group, while the other half receives staff-implemented intervention. Treatment group subjects will remain in intervention for 6 months or until they meet five mastery criteria. Treatment goals include: action and vocal imitation of familiar and unfamiliar models, participation in social routines, requesting, commenting, and comprehension and expression of vocabulary that encodes the key word for what the child was communicating nonverbally. Intervention techniques will include contingent imitation, scaffolded modeling, environmental arrangement, and violations of routines.

**ANTICIPATED PRODUCTS:** If parents in the experimental group use more behaviors facilitating language development, such findings will support the important bidirectional assumption of the family-systems approach to intervention and the transactional theory of development, two theoretical models undergirding Public Law 99-457, Part H. After determining the effectiveness of intervention, results and validated intervention procedures will be disseminated to practitioners and researchers.

## ***SECTION 4:***

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# ***INSTRUCTIONAL EFFECTIVENESS, MODELS, AND LEARNING***

## **Incorporating Phoneme Awareness Into Classroom Reading Programs: A Comparison of Special Education Referral Rates**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023N10003

BEGINNING DATE: 1/01/91

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will investigate the comparative effects on special education referral rates of including a phoneme awareness component in kindergarten, developmental-first, and 1st-grade early reading programs.

**METHOD:** Six Chicago public schools will participate in the project: two that follow the traditional basal reading program, two in transition from basal to whole language, and two known to be whole language schools. Kindergarten, developmental-first, and 1st-grade teachers from approximately 30 classrooms will participate in inservice training focusing on either phoneme awareness (treatment condition) or the literacy interests of the participating teachers (control condition). Results of the phoneme awareness intervention will be evaluated over a 3-year period with children determined to be at risk for reading disabilities. Data will be analyzed to determine if children in the two conditions (phoneme awareness component vs. control) differ on reading and writing measures, and to what extent any differences are present beyond the first year. Information will also be gathered on special education referral rates, prereferral intervention strategies, and school success.

**ANTICIPATED PRODUCTS:** Dissemination activities will include journal articles, conference presentations, and workshops for elementary school teachers.

## **Improving Text Enables Mainstreamed Students' Success**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023B30014

BEGINNING DATE: 9/01/93

ENDING DATE: 10/01/95

### **ABSTRACT**

**PURPOSE:** This study will examine whether use of a causally-organized history textbook over an entire year is more effective than traditional methods and material for students with and without learning disabilities.

**METHOD:** Two measures of history knowledge and one measure of student motivation will be employed to evaluate results. Two 8th-grade United States history teachers and their classes will participate, for a total of 120 students, of whom 6 to 12 will be mainstreamed students with learning disabilities. Students' posttest scores will be drawn from: (1) traditional multiple-choice history assessment through use of objective items from the history component of the National Assessment of Educational Progress tests; (2) performance assessment of history knowledge through student-generated written explanations of primary

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source historical documents; and (3) attitude assessment of students' intrinsic motivation to study history as measured by the Children's Intrinsic Motivation Inventory.

**ANTICIPATED PRODUCTS:** Findings of this research may result in the design and use of curricula and texts that better serve both mainstreamed and mainstream students. Findings of the research will also clarify possible needs for future modification of the textbook in question and will provide practical knowledge of its strengths and weaknesses in classroom implementation.

## **An Investigation of the Effectiveness of an Integrated Reading and Writing Instructional Approach**

GRANT NUMBER: H023B30036

BEGINNING DATE: 9/01/93

ENDING DATE: 2/28/95

### **ABSTRACT**

**PURPOSE:** This project will investigate the effectiveness of an integrated reading and writing instructional approach in increasing the ability of middle school students with learning disabilities to comprehend and produce/compare/contrast expository prose while receiving that instruction in a mainstream social studies classroom.

**METHOD:** A pretest/posttest control group design will be used. The project's major phases will be: (1) planning and development (site and participant selection, literature review, materials and instrument development); (2) hiring and training of personnel (including scorers, observers and classroom teachers); (3) implementation (pre-, interim-, and postintervention data collection, as well as delivery of the intervention itself); (4) evaluation of data (including examination and analysis of dependent measure data and case study information); and (5) dissemination of project findings.

**ANTICIPATED PRODUCTS:** Participants will be expected to show enhanced (a) comprehension of compare/contrast expository text, (b) writing using compare/contrast text structure, and (c) organization of compare/contrast expository writing. Information on the project's operating procedures, assessment system, findings, and training will be distributed through research papers presented at professional conferences and submitted for publication in professional journals, handbooks and reports on project procedures, guest lectures, inservice programs and consultations by the program investigator.

## **Research on the Effective Teaching Approach and Visual Display Enhancement to Improve the Content Learning of Adolescents with LD**

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GRANT NUMBER: H023N20027

BEGINNING DATE: 1/01/93

ENDING DATE: 12/30/95

### **ABSTRACT**

**PURPOSE:** This project will conduct one research activity and six experimental studies designed to investigate the effects of successful teaching approach and visual display enhancement on adolescents with learning disabilities (LD) and adolescents without learning disabilities.

**METHOD:** The first three studies will compare various components of the effective teaching approach with a traditional lecture approach to see the effects on the subjects' acquisition and retention of content material. The next two studies and research activity will build on the findings of the first three studies by examining the role of the effective teaching approach in visual display interventions. In addition, the characteristics of an effective visual display will be identified and how these characteristics influence content learning will be examined. The final study will extend the findings of the previous research activity and two studies by training regular and special education teachers to develop a variety of effective visual displays and to use these visual displays in an effectively taught content lesson. A peer coaching procedure will be used to help facilitate the integration of these effective teaching methods and enhancements into the teachers' daily routines across time. In addition, effects of the teaching approach plus visual display enhancement on the academic performance of adolescents with LD and those without LD in content classes will be examined.

**ANTICIPATED PRODUCTS:** This project will directly impact over 150 adolescents with and 30 adolescents who are normally achieving. The teaching approaches of 6 teachers (3 special education and 3 regular content teachers) will be impacted, and the training procedures will provide a prototype for future training efforts. As results of the studies are summarized, research reports and manuscripts will be prepared for publication in professional journals of special education. Project findings will also be presented at national conferences.

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## **The Effects of Combined Self-Management Strategies on the Generalization of Social Behavior Changes in Children with Social Skills Deficits**

GRANT NUMBER: H023B30008

BEGINNING DATE: 9/01/93

ENDING DATE: 2/28/95

### **ABSTRACT**

**PURPOSE:** This project will examine the relative effectiveness of a systematic combination of self-management strategies to external treatments to increase the generalization of social behavior changes in children with social skill deficits.

**METHOD:** Specific research questions will include: (1) Does social skills training alone produce the generalization of social behavior changes from training setting to natural settings? (2) Does a systematic combination of self-management strategies significantly increase the generalization of social behavior changes obtained through social skills training? (3) Does external reinforcement significantly increase the generalization of social behavior changes obtained by social skills training? (4) Is a systematic combination of self-management strategies more effective than external reinforcement on the generalization of social behavior changes? Subjects will be 6 2nd- and 3rd-grade students who display social skills deficits in classrooms and on playgrounds. The experimental design will consist of four phases: (1) baseline assessment; (2) social skills training; (3) generalization treatment; and (4) follow-up.

**ANTICIPATED PRODUCTS:** Findings from this research will help build an empirical database to support the development and application of an effective generalization strategy leading to positive, durable treatment outcomes. This strategy will enable both regular and special education teachers to effectively increase the generalization of social behavior changes in children with social skills deficits. Project procedures and outcomes will be disseminated through presentations at professional conferences, in addition to inservice and consultative work and site visits.

## **Improving the Persuasive Writing of Students with Learning Disabilities**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023B30023

BEGINNING DATE: 9/01/93

ENDING DATE: 2/28/95

### **ABSTRACT**

**PURPOSE:** The study will attempt to determine whether expanded instruction that focuses heavily upon the development of the argument is more effective than instruction focusing upon the minimal elements of persuasion in the production and quality of students' persuasive composition.

**METHOD:** Subjects will include 9th- and 10th-grade students with learning disabilities in Eugene, Oregon. Instruction in both experimental and control conditions will teach students to focus on essential elements of the persuasive

writing process such as engaging in preplanning, identifying one's audience, and developing a premise, reasons, and a conclusion in persuasive/argumentative essays. The experimental treatment will be designed to teach students: (a) to identify one's audience and consider the probable viewpoint of that audience; (b) to develop support in terms of the writer's viewpoint and develop an argument that counters the viewpoint of the opposition; and (c) to rank order reasons according to the writer's perception of argument strength and according to the probable reasoning of the audience.

**ANTICIPATED PRODUCTS:** This study will provide educators and researchers with information on research-based techniques to improve the writing of students with learning disabilities, and will determine if specific and explicit techniques can enable students with learning disabilities to approximate persuasive composition of peers without disabilities. Findings of the study will be disseminated at local, state, and national levels.

### **Accommodating Student Diversity in General Education Classrooms: A Downward Extension of Class-wide Peer Tutoring**

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GRANT NUMBER: H023N30003

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

#### **ABSTRACT**

**PURPOSE:** This project will reorganize 1st- through 3rd-grade reading instruction to enhance regular educators' abilities to accommodate a wider range of academic diversity in the mainstream.

**METHOD:** In Year 1, staff will develop and pilot Class-wide Peer Tutoring (CWPT) strategies for beginning readers in six 1st-grade classrooms in two schools. Procedures will make use of strategies and principles of effective reading instruction. The impact of these procedures will be carefully monitored by means of curriculum-based measurement. In Year 2, staff will examine experimentally the effectiveness and feasibility of the downward extension of the strategies with different types of students in mainstream 1st-grade classrooms. Participants will include 20 1st-grade teachers and 120 children, half of whom will be either at risk for or already involved in special education services. In Year 3, the downward extension of the program will be used to permit teachers to tailor CWPT experiences to student's individual needs. Decisions about CWPT placement will be aided by computer-managed curriculum-based assessment, which will be implemented class-wide.

**ANTICIPATED PRODUCTS:** Concrete products of the program will include a new, validated tutoring system in reading suited to needs of various levels of readers and a manual for training teachers and support staff to use the methods developed through the program.



## **Are Interactions the Things to Catch the Minds That Are Behind?**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30074

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will investigate whether teachers interact differently with students who do not have disabilities and with mainstreamed students with mild disabilities during regular classroom instruction.

**METHOD:** Using a database collected between 1983 and 1991 as a part of a longitudinal study of how children learn to read and apply their reading skills when learning science concepts, the project will compare the sample of children with disabilities with samples of both low-achieving and high-achieving students who do not have disabilities. Categories of classroom process analysis to be investigated include: teacher-initiated interaction, including academic and procedural interactions; and teacher feedback that follows pupil responses. Data analysis will also differentiate among confirming, sustaining, and terminal feedback. Statistical analysis will consist primarily of multivariate analysis of variance, with significant multivariate differences being followed up by a series of univariate ANOVAs, and, where appropriate, turkey post hoc comparisons or simple main effects analyses.

**ANTICIPATED PRODUCTS:** This project has the potential to illuminate heretofore unexamined aspects of teacher-directed instruction; its results will be available for use in developing further experimental studies on instruction. The findings from the experimental work could become the backbone of methods courses and inservice training for elementary school teachers.

## **Deaf Students as Readers and Writers: A Mixed-Mode Research Approach**

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GRANT NUMBER: H023T30006

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will examine the acquisition of reading and writing skills in deaf and hard-of-hearing children based on a quantitative study of child characteristics and a qualitative study of the classrooms they attend.

**METHOD:** The quantitative study of student outcomes will include measures of student language, reading and writing skills, in two age-matched groups of deaf and hard-of-hearing students in two schooling settings. This study will also include institutional variables of the settings where they receive their schooling, and analyses of associations between the students' performances and these institutional variables. The qualitative study of instructional practices will examine two distinct settings that exemplify different modes of communication



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during reading and writing instruction. This study will be coupled with analysis of deaf and hard-of-hearing students' responses to instructional language as documented in their interaction and engagement with instruction, in their reading and writing practices, and in their written products.

**ANTICIPATED PRODUCTS:** Key research personnel will include activities to disseminate project findings through their writing and publishing.

**Promoting Appropriate Social Skills with At-Risk  
Children in the Generalized Environment**

GRANT NUMBER: H023B30010

BEGINNING DATE: 10/01/93

ENDING DATE: 3/31/95

**ABSTRACT**

**PURPOSE:** This research will examine whether a set of generic social skills curriculum prescriptions, developed with empirically validated generalization practices, can be adapted to any existing social skills curriculum or program as an upgrade to enhance generalized responding of social skills where existing methods alone have failed.

**METHOD:** Subjects will be 5 elementary students from each of three resource rooms, who have been identified as displaying social skills deficiencies. Playground observations will be conducted to confirm these deficits, and each teacher will also identify a student who displays appropriate social interaction skills. A generalization upgrade program will be developed according to empirically derived best practices and will be tailored as an upgrade, to be attached to any existing curricula. Subjects will then be divided for either baseline without social skills training, social skills via traditional curriculum alone, or social skills via traditional curriculum plus generalization upgrade program.

**ANTICIPATED PRODUCTS:** An annual project report and associated research papers will provide project descriptions and reports and will be disseminated at professional conferences and meetings. Procedures will be disseminated via inservice training, guest lectures, and site visits. Outcomes will be published in professional journals and presented at professional conferences.

## Critical Thinking Instruction Via Problem Schemas for Learning Disabled Adolescents

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C10133

BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/94

### ABSTRACT

**PURPOSE:** This project will investigate the ways in which students with learning disabilities, compared with their nondisabled peers, comprehend and solve problems relevant to decisions that they will have to make in their own lives. Findings will be used in the development and evaluation of instruction that is effective in promoting critical thinking in these areas.

**METHOD:** The specific focus of the studies is on the nature of the social/personal problems that are posed. Three studies will investigate the performance of adolescents with learning disabilities and adolescents who are not disabled on two types of problems: bounded problems, in which the information presented in the problem is sufficient to permit a satisfactory solution to be reached; and unbounded problems, to which additional information must be introduced and evaluated before a decision among alternative possible solutions is made. In addition, several different contexts in which a problem can be presented will be compared: low context, elaborated context, irrelevant context, and value-laden context. A fourth study will involve the development and evaluation of an instructional program based on the findings of the first three studies. The program will be based on an effective selection and sequencing of appropriate problems, and will teach students to evaluate critically the information to be considered in the formulation of a problem and to use schemas both in formulating and in solving the problem. Methodology will be modeled on the general strategy of the clinical interview, including initial, open-ended questions followed by detailed probe questions. A coding scheme will be developed for the analysis of the resulting protocols. Statistical analysis will use primarily analysis of variance, analysis of covariance, and nonparametric tests such as chi-square.

**ANTICIPATED PRODUCTS:** The project will develop instructional materials that promote critical thinking in adolescents with learning disabilities as well as guidelines for effective instructional strategies for teachers to use with the materials.

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## Interpretation of Narrative Theme and Students with Learning Disabilities

GRANT NUMBER: H023C30126

BEGINNING DATE: 9/01/93

ENDING DATE: 10/31/96

### ABSTRACT

**PURPOSE:** This project will investigate the ways in which students with learning disabilities, compared with peers who are not disabled, comprehend complex text that focuses on a content domain of fundamental importance, namely, human social interactions. Another purpose is to determine what types of instruction are effective in promoting comprehension and generalization of comprehension.

**METHOD:** The general methodology to be followed will be modeled on the general strategy of clinical interviews, using sets of 20 students with learning disabilities and equal numbers of age-matched and reading-ability-matched students who are not disabled. Initial questions will be open-ended and students will be encouraged to talk freely. Detailed probe questions will be employed to extract further information. A coding scheme will be developed for the analysis of the resulting protocols. Statistical analysis will use primarily analysis of variance and covariance.

**ANTICIPATED PRODUCTS:** The project expects to generate the following products: selected and evaluated reading materials that focus on a small set of issues that are interesting, important, and useful for students with learning disabilities; guidelines for effective instructional strategies; an instructional program developed on the basis of these guidelines; and an evaluation of the instructional program.

## Informed Instruction in Mathematics

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GRANT NUMBER: H180G20001

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/95

### ABSTRACT

**PURPOSE:** This project will develop a model of teaching that incorporates a detailed understanding of student errors and at the same time stresses conceptual knowledge. The model is known as "informed instruction."

**METHOD:** TORUS, an artificial intelligence program for diagnosing misconceptions in addition and subtraction, will be used as an ongoing method for assessing student learning. Teacher techniques that systematically probe misconceptions and confusion will also be used in some instances. Both diagnostic methods will be linked to conceptually-based remediation techniques. A conceptually-based curriculum will be developed using a variety of resources, and the TORUS program will be piloted as a tool for informing teachers of student misconceptions. Two intervention studies will be conducted to evaluate the effectiveness of an informed instruction approach for systematic linking of addition and subtraction computations and diagnosis of misconceptions.

**ANTICIPATED PRODUCTS:** The final dissemination materials will reflect extensive efforts at empirically validating and refining an informed instructional approach to mathematics. A videotape of informed instruction vignettes will be made to accompany a fully refined version of the concepts curriculum. Other disseminable materials will include guidelines for adapting the informed instruction techniques, where possible, to other common areas of mathematics instruction for students with learning disabilities. Local inservice workshops on informed instruction will be conducted, and articles will be prepared for professional journals.

## ***SECTION 5:***

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# ***POLICY, RESTRUCTURING, AND SERVICE DELIVERY ISSUES***

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## Technical Assistance in Data Analysis, Evaluation, and Report Preparation

GRANT NUMBER: HS92035001

BEGINNING DATE: 9/30/92

ENDING DATE: 10/01/96

### ABSTRACT

**PURPOSE:** This project will create a Center for Data Analysis, Evaluation and Report Preparation to support the Office of Special Education Programs (OSEP) in meeting its responsibilities for the collection, synthesis, and dissemination of information for program management, administration, delivery, and effectiveness.

**METHOD:** The Center will assist OSEP in developing the capacity to collect and analyze valid, reliable, and comparable data for reporting, program planning, and evaluation. Studies will be conducted to analyze significant and emerging issues in special education, and the Center will assist OSEP in providing guidance to state and local educators regarding educational reform issues. Assistance will also be provided to states working to build the capacity to collect valid and reliable data and to perform under the Individuals with Disabilities Education Act (IDEA). The Center will facilitate information exchanges among federal, state, and local special educators to discuss common concerns and goals. Information from multiple sources will be obtained, organized, and analyzed for reporting on the status of IDEA implementation, and the impact and effectiveness of IDEA implementation.

**ANTICIPATED PRODUCTS:** The Center will provide information dissemination, technical assistance, and liaison functions, as well as demonstrate a commitment to stakeholder involvement. Instruments of the technical assistance component will include individual technical assistance activities, semiannual forums, information packets, reference materials, and a research instruments database.

## Center for Special Education Finance

GRANT NUMBER: H159G20002

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/97

### ABSTRACT

**PURPOSE:** The Center for Special Education Finance will provide policymakers and administrators at the federal, state and local levels, data, analyses, expertise, and opportunities for information sharing regarding complex and critical special education finance issues.

**METHOD:** The Center will compile special education expenditure statistics, with a data system that will produce nationally representative data tying fiscal analysis to program descriptions. This system will be replicable and will include the construction of a core database that will serve as the basis for the fiscal research to be conducted by the Center. Special education finance policy studies

will be conducted through collaborative arrangements with many of the country's leading researchers in special education school finance. Information on state special education finance systems will be aggregated and updated as well.

**ANTICIPATED PRODUCTS:** The planned Center will provide much-needed information on how much is being spent on special education services and will assess patterns of resource allocation. Dissemination products will include a descriptive brochure, an annotated list of Center reports, policy briefs, data summaries, the core database along with documentation, summaries of Center technical reports, and press releases.

### **Project Education Plus: A Proposal to Include Children with Disabilities as a Part of the Systemic Efforts to Restructure Schools**

**PRINCIPAL INVESTIGATOR:**

Davis, Thomas  
Holt Public Schools  
4610 Spahr  
Holt, MI 48842  
517-694-0401

GRANT NUMBER: H023R20010  
BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/96

#### **ABSTRACT**

**PURPOSE:** This project will restructure secondary programs at Holt High School in order to provide improved student advocacy for students with disabilities and those designated as "high risk".

**METHOD:** Interactive relationships will be developed with established school programs, child and adult service agencies, and the Holt community. Parent and student support groups will be established, and training in postsecondary rights and service delivery systems will be provided for students and parents. A core transdisciplinary staff will be established with the ability to identify needs and assist with making contacts with identified agencies. Specific services provided to students will include mentorship, vocational assessment, career counseling, psychosocial counseling, training in assertiveness and self-advocacy, and other services as identified imperative to transition into adult life.

**ANTICIPATED PRODUCTS:** An estimated 250 students will be directly served through the project, and an additional 300 will receive indirect services. The ultimate outcome to the students will be active participation in achieving personal, educational, and vocational skills development, utilizing school and community support, to result in appropriate employment, independence, and involvement with the community. A comprehensive evaluation plan, including formative and summative evaluation methods, will provide and disseminate data on the effectiveness, and efficiency of project efforts.



## **Systemic Restructuring to Include Children with Disabilities: A School-Based Multidistrict Demonstration Program**

### **PRINCIPAL INVESTIGATOR:**

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Department of Special Education  
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GRANT NUMBER: H023R20030

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will determine what common systemic changes need to be made in schools that are restructuring to increase the inclusion of students with disabilities in general education and improve outcomes for all students.

**METHOD:** An initial model of necessary systemic changes will be developed that will achieve the above goals regardless of the sociodemographic characteristics of a school, its stage of restructuring, or the innovative practices adopted by the school. This model will be developed through determination of common systemic changes specified in strategic plans developed at the end of the first year of the project by all five participating schools. The model will be demonstrated through implementation of changes selected by participating schools as being critical to implement selected innovative practices. Through case studies, the implementation process will be evaluated, and case study results will guide the process of revision and refinement throughout the project.

**ANTICIPATED PRODUCTS:** A newsletter will be developed that describes project findings and the status of the demonstration. Presentations will be made at national, regional, and state conferences. Project staff will meet with the principal investigators of the other six funded demonstration grants to share findings and shape further dissemination plans.

## **Assessing the Impact of Recent State Legislation of the Education of Students with Disabilities and Their Families in Vermont**

### **PRINCIPAL INVESTIGATOR:**

Fox, Wayne  
Hasazi, Susan  
Meyers, Bud  
Vermont Department of Education  
120 State Street  
Montpelier, VT 05620  
802-828-3141

GRANT NUMBER: H159A30001

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/95

### **ABSTRACT**

**PURPOSE:** This project will: (1) evaluate the impact of recent changes in Vermont legislation and policy on local school policy and practice; (2) evaluate the impact of changes in local policy and practice on the delivery of special education services; and (3) assess the impact of these changes on outcomes for children with disabilities and their families.

**METHOD:** The project design includes a state-wide survey, an intensive indepth ecological study of schools showing dramatic decreases in child count, and records searches and interviews with a variety of stakeholders in Vermont schools. More than 4,000 students, parents, school administrators, and educators will be interviewed over the 2 years of the project. Interviews and other study

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components will seek to answer whether or not students who would have previously been referred for special education are being adequately served within general education settings, and if students who no longer receive special education are being successfully educated within general education settings.

**ANTICIPATED PRODUCTS:** Every superintendency in Vermont (N-60) will be impacted by the evaluation study. Results of the evaluation project will be widely disseminated throughout Vermont and to other SEAs throughout the country.

**Responsible Reintegration in Reading with  
Transenvironmental Programming, Curriculum-Based  
Measurement, and Class-wide Peer Tutoring**

GRANT NUMBER: H023C10086

BEGINNING DATE: 9/01/91

ENDING DATE: 8/31/94

**ABSTRACT**

**PURPOSE:** The third year of this project will build on Year 1 efforts, which developed a databased transenvironmental procedure for transitioning elementary grade students with disabilities from resource room to mainstream classrooms. The transition procedure: (1) identifies skills and behaviors necessary for successful transition; (2) generates strategies for how these skills and behaviors should be taught; and (3) specifies a problem-solving collaborative relationship between special and general educators. Two versions of a class-wide peer tutoring program (with and without an individualized, curriculum-based measurement component) in reading were also developed and evaluated. During Year 2, the most effective and efficient reintegration procedures were evaluated.

**METHOD:** Twenty students with disabilities and their special education and general education teachers (N-40) will be followed in intensive case studies, beginning with their identification as reintegration candidates and ending no sooner than 6 weeks following their return to mainstream reading classrooms. The reintegration procedure identified during Year 1 as effective and efficient will be implemented with half the students and their teachers, who will be trained in the approach. The remaining students and teachers will serve as controls. Teacher satisfaction will be evaluated by means of four teacher rating measures. A variety of measures will evaluate student self-concept, social adjustment, student satisfaction, extent of reintegration, and student achievement.

**ANTICIPATED PRODUCTS:** Products will include research reports on the effects of CBM and deliberate, systematic reintegration, research reports on the effects of type of Class-wide Peer Tutoring (with and without an individualized CBM-based instructional component), research reports on the effects of a restructured mainstream reading peer tutoring program and deliberate systematic reintegration, and a manual for training teachers and support staff in use of these methods.

## **Project SCORE: Systemic Change Organizing Reform Efforts**

### **PRINCIPAL INVESTIGATOR:**

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615-343-4787

GRANT NUMBER: H023R20016

BEGINNING DATE: 9/01/92

ENDING DATE: 8/31/96

### **ABSTRACT**

**PURPOSE:** This project will employ a systematic perspective in pursuit of an ambitious agenda of working at the state, district, and school levels to evaluate and revise policies and practices and encourage full participation and collaboration among members of the Metro-Nashville public school system and the community at large.

**METHOD:** Quantitative and qualitative methods will be employed within a quasi-experimental design using two project schools and one comparison school. After spending the first half of the first year in planning, School A will conduct small pilots of systematic changes and effective practices, with School B being studied for comparison and control purposes. Implementation at School A will gradually increase throughout the second year until at least 70% of the school population participates in project activities. Meanwhile, School C will commence planning and plotting much as School A did in the previous year. Individual goals within this framework will range from detracking and curriculum enrichment to university and hospital linkages and reform of decision-making and self-determination processes throughout the system.

**ANTICIPATED PRODUCTS:** Following documentation and validation of project practices, dissemination to the scholarly audience will focus on ERIC network reports, journal articles, and presentations at national, state, and regional conferences. Parents and practitioners will be reached through dissemination of a training manual and other practitioner-oriented documents. Professional leadership training activities and other technical support will be provided to support replication and implementation of identified practices.

## **An Ethnographic Case Study of Social Relationships**

### **PRINCIPAL INVESTIGATOR:**

Gonsier-Gerdin, Jean  
Goetz, Lori  
California Research Institute  
San Francisco, CA 94132  
415-338-6230

GRANT NUMBER: H023B30011

BEGINNING DATE: 9/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will explore the effects of the full inclusion model on the social relationships between elementary students with severe disabilities and their classmates without disabilities.

**METHOD:** One elementary school in the San Francisco Bay area will serve as the research site, with particular focus on three classrooms in which students with severe disabilities are fully included. Information will be derived from detailed, prolonged observations, interviews, researcher-designed instruments, and content analysis of documents and artifacts. Observations will take place during the school day and will be recorded in field notes. Processes of data collection and data analysis will be combined through an inductive data analysis approach.

**PRINCIPAL INVESTIGATOR:**

Jackson, Patricia  
Oregon Department of Education  
Office of Special Education  
700 Pringle Parkway, S.E.  
Salem, OR 97310-0290  
503-378-3598

**ANTICIPATED PRODUCTS:** The primary goal that will be generation of a representative case picture that will increase the understanding of the outcomes of full inclusion for both students with severe disabilities and nondisabled students. Exploratory research will generate hypotheses for further investigation and may serve to guide service delivery and program policy. The development of the anticipated "friendship indicators" should contribute to future efforts to predict and structure social relationships in mainstreamed settings.

**Evaluation of the Oregon-Supported Education Plan  
and Local Systems Change**

GRANT NUMBER: H159A20002

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

**ABSTRACT**

**PURPOSE:** This study will assess the effectiveness of state and local education reform policies and activities and their impact on the level of supported education, instructional practices, and student outcomes.

**METHOD:** The evaluation of policy effectiveness will employ multiple measures of observations, interviews, and surveys across six respondent groups to answer the evaluation outcomes proposed. The primary focus of study will be the efficacy and extent of implementation of the state's supported education program, which emphasizes the use of Individualized Education Plans for students with disabilities with the ultimate goal being full integration of students in the regular classroom. After pilot testing with two Local Education Agencies (LEAs), evaluation will be extended to 30 LEAs. Several LEAs will begin their Oregon Department of Education (ODE) supported 3rd and 4th years of implementation during the project. The study will conduct pre-implementation assessments, implementation assessments, and replication assessments for selected LEAs. Effects of the supported education model should thus be ascertainable through reports from respondents over time.

**ANTICIPATED PRODUCTS:** The program should generate revised evaluation instruments, detailed management plans for each LEA, LEA case study reports, a data analysis report, and a report of barriers and strategies identified as appropriate for each LEA and across the 25-30 LEAs, and a final summary report. A list of dissemination activities and products will be made available upon completion of the project.

## **Including Students with Disabilities as a Part of Systemic Efforts to Restructure Schools: Souhegan Cooperative School District**

### **PRINCIPAL INVESTIGATOR:**

Jorgenson, Cheryl  
University of New Hampshire  
Institute on Disability  
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125 Technology Drive  
Durham, NH 03824  
603-862-4320

GRANT NUMBER: H023R20018

BEGINNING DATE: 9/01/92

ENDING DATE: 8/31/96

### **ABSTRACT**

**PURPOSE:** This project will assist New Hampshire schools with the inclusion of students with disabilities in secondary school restructuring and reform efforts.

**METHOD:** Training and technical assistance will be provided to Souhegan High School to insure that the needs of students with disabilities are fully considered in all curricular, governance, and organizational reform efforts. Training and technical assistance at Souhegan and other schools in New Hampshire will also target the objective of full inclusion of all students in the mainstream of education. Findings from the Souhegan effort will be replicated at two additional high schools. In collaboration with the University of New Hampshire's teacher education program, inclusion philosophy and practices will be critically examined and integrated into teacher training programs. In collaboration with the state Department of Education, inclusion-related philosophy and competencies will be incorporated into teacher certification revision efforts. Leadership training will be provided to regular and special education school administrators relative to best practices in inclusion, reform, and restructuring.

**ANTICIPATED PRODUCTS:** A model will be developed for evaluating educational outcomes of students with disabilities enrolled in restructured schools and overall project efforts. Dissemination materials will include two books, four refereed journal articles or book chapters, one monograph, a manual of lesson plans, a project brochure and newsletter, 20 regional and national conference presentations, and a conference on restructuring and inclusion sponsored specifically by the project. General community awareness will be increased throughout the state regarding the rationale behind full inclusion of students with disabilities in school improvement efforts.

## **Technical Support for the Department of Education's Effort for Translating Research to Practice for Educating Individuals with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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2030 M Street, N.W., Suite 810  
Washington, DC 20036  
202-785-9360

GRANT NUMBER: HS92017001

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/97

### **ABSTRACT**

**PURPOSE:** This project will provide technical support for the Department of Education's effort to translate research into practice in the field of educating students with disabilities.

**METHOD:** The project will plan and evaluate programs to support the development of national program agendas, and identify and confirm focus statements and strategic targets for national commitment. Information will be synthesized from a variety of sources, including literature, programs, individuals and groups, to identify potentially effective practices. In the process of developing an accessible professional knowledge base, the project will implement and evaluate strategies for creating linkages between researchers and practitioners, in addition to disseminating pertinent information and soliciting consumer input. The project will also develop and implement a performance management system to ensure continuation and generalization of practices found effective.

**ANTICIPATED PRODUCTS:** Results of program evaluations will be a series of reports corresponding to specific project target statements, a final report on implementation procedures, and a final report on national agenda-building processes.

### **Project REFORM: Research on Collaborative Service for Students with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

Marsten, Douglas  
Minneapolis Public Schools  
801 Northeast Broadway  
Minneapolis, MN 55413  
612-627-2190

GRANT NUMBER: H023A30059

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will study the impact of innovative approaches to serving students with disabilities collaboratively.

**METHOD:** Study I, a descriptive study, examines the extent to which six Project Reform schools have developed collaborative models, analyzed teacher concerns, and identified the barriers to implementing successful delivery of services. Study II will analyze an 8-year formative evaluation database with curriculum-based measures of reading and math to determine which building models are most successful in improving the performance of students with disabilities. Study III will examine what elements of collaboration models predict improved student outcomes by entering levels of use, ScharS, and ADAPt scales into multiple regression analyses to help predict pupil progress on CBM measures.

**PRINCIPAL INVESTIGATOR:**

McLaughlin, Margaret  
University of Maryland at  
College Park  
Institute for the Study of  
Exceptional Children  
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**ANTICIPATED PRODUCTS:** In addition to immediate impact within the Minneapolis school system, results will be made available to interested school districts around the country. By systematically studying the impact of new approaches and identifying the most effective elements and barriers to implementation, the program should be able to provide a wealth of knowledge upon which other schools and research can build. By identifying variables critical to the success of collaborative models, the program hopes to be able to build and test teacher training modules directed toward enhancing these approaches.

**Systemic School Reform for Students with Disabilities  
in Prince George's County**

GRANT NUMBER: H023R30016

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/97

**ABSTRACT**

**PURPOSE:** This project will assist three separate elementary schools in Prince George's County, Maryland, to move toward a comprehensive school-wide restructuring process that will address the major aspects of school restructuring including the special education service delivery system.

**METHOD:** Within each school, project staff in cooperation with school staff will: (1) select and refine a framework for restructuring special education service delivery; (2) develop a comprehensive strategic plan that specifies goals in each of the five restructuring areas, identify key events that must occur, responsible parties, and specify timelines; (3) implement and refine the systemic educational restructuring plan to accommodate ongoing reform initiatives; (4) conduct case studies to document the process of restructuring; (5) develop school sites into professional development centers providing collaborative training of special and regular educators; and (6) conduct project evaluation.

**ANTICIPATED PRODUCTS:** The outcome of the project will be not one model of change, but three individual approaches to restructuring the total educational programs within participating schools. Experiences of participants, as well as intended and unintended outcomes or products, including effects on students, will be carefully documented through case studies and broadly disseminated



## **Including Children with Disabilities as a Part of Systemic Efforts to Restructure Schools**

### **PRINCIPAL INVESTIGATOR:**

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State University of New York --  
Albany  
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Albany, NY 12222  
518-442-5065

GRANT NUMBER: H023R30030

BEGINNING DATE: 6/01/93

ENDING DATE: 5/31/97

### **ABSTRACT**

**PURPOSE:** This project will develop, implement, and evaluate district-wide policies and procedures to change the overall educational system in a manner that includes students with disabilities as a major component of this reform.

**METHOD:** The model project will be implemented in a school district in Rotterdam, New York, which currently serves 2,900 students, including 215 special education students. The project will employ a district steering committee, a model project think tank, six district planning teams, three building reform teams, and four participant/observers as basic structures of operation. During the initial planning phase, district planning teams will engage in refining major goals, determining specific outcomes associated with each goal, and developing measurement techniques to assess each specific outcome. Building-level planning will follow, using school-based teams to set standards for determining goal attainment at each school, and to formulate reform intervention plans and professional development activities designed to accomplish these reforms. Building reform teams will design strategies and structure implementation activities in their own schools and along with the steering committee, they will monitor the efficacy of implementation.

**ANTICIPATED PRODUCTS:** Project staff will present findings and results of this project at state and local conferences. They will also provide inservice training and develop articles for publication in relevant research journals.

## **Restructuring Education for Work: Examining the Outcomes for Youth with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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Northwest Suburban Special  
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708-577-7749

GRANT NUMBER: H023R20034

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/97

### **ABSTRACT**

**PURPOSE:** This project will: (1) refine and implement a merged restructuring effort centering on the inclusion of youth with disabilities in tech prep programs, and (2) rigorously evaluate the processes, effects, and impact of this initiative.

**METHOD:** A 15-member leadership cadre will guide the development and implementation of the project. The cadre will be facilitated and supported by an evaluation consultant team from the Center on Education and Work and the Center on Organization and Restructuring of Schools, both located at the University of Wisconsin. The project will incorporate concepts of reflective practice, teamwork, continuous quality improvement, organizational learning, and action research teams. These teams will conduct focus groups, surveys, interviews, document analyses, and observations as appropriate. Based on a

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Peter, Marshall  
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comprehensive data set, specific reform strategies will be developed, implemented, and evaluated in Years 2 and 3. During the latter part of Year 3 and throughout Year 4 the validated processes will be replicated in nearby school districts.

**ANTICIPATED PRODUCTS:** A guidebook describing the planning, implementation, and continuous assessment processes used throughout the study will be produced. Throughout the project, a series of special reports and journal articles documenting the resolution of critical curriculum and instructional issues will be released.

**Lane County Direction Service — Ombudspersons**

GRANT NUMBER: H023M20010

BEGINNING DATE: 10/01/92

ENDING DATE: 3/30/96

**ABSTRACT**

**PURPOSE:** This project will improve the delivery of community services for children/young adults with disabilities and help ensure their involvement in appropriate educational programs.

**METHOD:** Project goals will be accomplished through the recruitment and training of ombudspersons to assist families, and the development of a multi-agency advisory committee charged with the identification and resolution of systemic and organizational problems. A model ombudsman program is planned within a school district serving over 17,000 students, including at least 1,500 students with disabilities. Information on available community resources for families of children with disabilities will be collected and updated. A consumer satisfaction survey will be designed and administered to parents, and a qualitative study will examine formal and informal patterns of interaction between the school district and other service providers.

**ANTICIPATED PRODUCTS:** Results should involve: (1) creation of a trained cadre of professional ombudspeople; (2) initiation of communication among key agency leaders for the specific purpose of improving collaborative relations; (3) improved access to high quality information on community resources for parents and consumers; (4) extensive documentation of system improvement needs in the school district; and (5) development and field testing of an innovative ombudsperson training package.

## **The Thoughtful Structures and Effective Practices Project: Building an Inclusive Exemplary High School Community**

### **PRINCIPAL INVESTIGATOR:**

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206-828-3201

GRANT NUMBER: H023R30015

BEGINNING DATE: 6/01/93

ENDING DATE: 5/31/97

### **ABSTRACT**

**PURPOSE:** This project will incorporate effective practices for students with disabilities into a new high school that is committed to inclusion.

**METHOD:** Beginning in Year I and continuing throughout the project, the project will play a major role in developing the high school's mission, student goals, student outcomes, and quality indicators to better reflect the diversity of student needs. The project Advisory Committee and school teams will receive training and assistance needed to participate in the school process of developing systems of accountability for its students, actualizing its inclusion goal, and reallocating staff and resources for integrated programming. Project funds will support staff development in best practices for secondary students with disabilities chosen by the school teams. Multiple methods will be used to document the process of developing an inclusive high school including focus group interviews, stakeholder surveys, observation and documentation of meetings, and collection and analyses of school documents.

**ANTICIPATED PRODUCTS:** Findings and updates on the ongoing project will be disseminated through newsletters to parents of students with disabilities and their teachers.

## **Ombudsperson Services for Children and Youth with Disabilities**

### **PRINCIPAL INVESTIGATOR:**

Royster, Cathy  
Ohio Legal Rights Service  
8 East Long Street, 5th Floor  
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614-466-7264

GRANT NUMBER: H023M20001

BEGINNING DATE: 12/01/92

ENDING DATE: 6/01/94

### **ABSTRACT**

**PURPOSE:** This program will create and pilot a proactive special education ombudsperson program that would initiate positive systemic change on both state-wide and local levels.

**METHOD:** Major objectives for Phase I include: (1) development of a proactive ombudsperson program to ensure the provision of appropriate special education and related services to children and youth with disabilities; (2) identification of systemic barriers in the provision of appropriate special education and related services; (3) the attempted elimination of systemic barriers through proactive and systemic change; and (4) development of an in-depth project description from which to direct and evaluate the implementation of the special education ombudsman project in a local Ohio school district. Phase II objectives are to: (1) assess the feasibility of the special education ombudsperson model by piloting

the project; (2) increase accurate special education and related services information; (3) seek sources of funding for Phase II; and (4) evaluate the effectiveness of the pilot project and the plan to eliminate systemic barriers.

**ANTICIPATED PRODUCTS:** Specific products will include: (1) an outline of the proactive ombudsman model, procedures, and job descriptions; (2) newsletter publication of the results of public meetings and participants' identification of systemic barriers in the provision of special education and related services in Ohio; (3) a survey instrument for public meeting participants; (4) newsletter publication of survey results; (5) an annual report using the data to assess state and local successes and systemic barriers; and (6) newsletter publication of goals, the plan, and a description of the school district. After Phase II, age-appropriate pamphlets describing the rights of students with disabilities and written materials for parents, service providers and administrators would be published.

### **Including Children with Disabilities in School-Based Change**

**PRINCIPAL INVESTIGATOR:**  
Schulte, Ann  
University of North Carolina  
CB# 8180  
Chapel Hill, NC 27599  
919-966-5266

GRANT NUMBER: H023R30014  
BEGINNING DATE: 7/01/88

ENDING DATE: 6/30/94

#### **ABSTRACT**

**PURPOSE:** This project will implement and evaluate a school-based change process to help schools take a comprehensive view of special education services and the needs of the children they serve.

**METHOD:** The model includes: (1) a school-wide self-examination; (2) parental involvement; (3) a school-based planning team; (4) ongoing and varied forms of technical assistance; (5) time-limited funds to the school for innovation; and (6) planned exit of the researchers. Within the model, school staff and parents articulate guiding principles for the design of effective services for children with disabilities, and then participate in a 4-day workshop to examine school practices in relation to these guiding principles and the school's stated goals. Two schools that are engaged in school-based restructuring will serve as test sites. Qualitative case study methodology, quantitative measures, and data produced by the built-in evaluation process will be used to provide evidence of the change model's effectiveness in producing meaningful outcomes for special education students.

**ANTICIPATED PRODUCTS:** Research findings and results from this project will be presented at annual meetings of professional organizations and published in relevant journals. Products will include a practitioner guide on considerations in making schools more effective for children with disabilities and a description of special education services within site-managed schools.

## **Involvement and Impact on Special Education Programs, Personnel, and Students as a Result of Education Reform Efforts**

### **PRINCIPAL INVESTIGATOR:**

Senne, Ron  
Department of Education and  
Cultural Affairs  
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Pierre, SD 57501  
605-773-3678

GRANT NUMBER: H159A30006

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will critically reflect on the state-wide educational reform initiatives in regard to the level of involvement and resultant impact on special education programs, personnel, and instruction.

**METHOD:** The study will collect information from state agencies and the 20 school districts that have been involved in the state-wide school modernization initiative. Eight districts are entering their third year of participation in the state-wide initiative; eight are entering their second year of participation, and four districts are entering their first year of involvement in the modernization program. The SEA will also participate with the 20 modernization districts in a quantitative description and analytical study regarding district level efforts reflecting the state-wide initiative. Three school districts, one each in first, second, and third years of reform, will be involved in an in-depth qualitative information collection intended to determine the extent of the involvement of special education issues in educational reform efforts and the quality of outcomes in regard to systemic change and classroom practice.

**ANTICIPATED PRODUCTS:** The study will result in identification of successful strategies for inclusion of special education issues in systemic reform efforts and the involvement of personnel in capacity building and instructional change strategies. The study will also identify potential barriers at both policy and implementation levels that inhibit systemic reform.

## **Research on Responsibly Reintegrating Academically Competent Special Education Students Into General Education Classrooms**

### **PRINCIPAL INVESTIGATOR:**

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University of Oregon  
College of Education  
School Psychology Program  
Eugene, OR 97405  
503-346-2144

GRANT NUMBER: H023C10151

BEGINNING DATE: 9/01/91

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This research project is based on the premise that reintegration of students into the least restrictive environment (LRE) should be databased: models and procedures should be validated empirically. A model stressing responsible (i.e., databased) reintegration of academically competent students with mild disabilities is proposed: the RReACS model (Responsible Reintegration of Academically Competent Students).

**METHOD:** Studies in the first year focused on nonintrusive research directed at: (1) identifying the level of performance and the rate of progress expected of general education (GE) students in the general education (GE) curriculum;

(2) determining the number of special education (SE) students demonstrating levels of performance and rates of progress comparable to GE students (using curriculum-based measures of reading); (3) examining the attitudes and concerns of SE and GE teachers about reintegration of PAC students; and (4) identifying relevant, meaningful data and available resources that potentially can facilitate the successful reintegration of PAC students. The second year of research will be experimental (intrusive) in that student placement will be manipulated with the support of parents and teachers. Reintegration will be pursued for all PAC students in two waves. For each student, academic performance will be considered by the IEP and appropriate placement made following due process procedures. The effects of reintegration on the level of academic skills, rates of progress, and perceived self-efficacy will be examined in single-subject and group experimental designs. Subjects will include GE and SE students (grades 2-6), GE and SE teachers, and parents of students from two school districts in Oregon.

**ANTICIPATED PRODUCTS:** The project should result in a model program to facilitate the reintegration of special education students into general education. Dissemination of the model will begin at national conferences, through journal publications, and school district workshops.

### **Project RISES: Restructuring for the Inclusion of Special Education Students**

**PRINCIPAL INVESTIGATOR:**

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University of Florida  
219 Grinter Hall  
Gainesville, FL 32611  
904-392-0701

GRANTNUMBER: H023R30010

BEGINNINGDATE: 8/01/93

ENDING DATE: 7/31/94

### **ABSTRACT**

**PURPOSE:** This project will demonstrate that systemic school reform is possible, that its effects can be documented, and that methods used to initiate systemic reform can be disseminated to other schools.

**METHOD:** Over a 2-year period, stakeholders and project staff will develop and test a more tangible and transportable version of the basic model of school restructuring in question. Project staff will assist stakeholders as they develop materials and design training programs for a second-generation target school to join the project in a third year. Materials will show how a traditional school can move through shared decision making to curricular, instructional, and organizational restructuring. Specific programs to meet the academic, social, and developmental needs of at-risk children will be offered.

**ANTICIPATED PRODUCTS:** Dissemination of project findings will be carried out through conference presentations, articles for publication, distribution via the ERIC database, and a manual on meeting the needs of hard-to-reach students in restructured schools.

## **Project SUCCEED in Middle Schools: Securing Understanding in Content Through Consultation and Explicit Environmental Demands**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30064

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/98

### **ABSTRACT**

**PURPOSE:** This project will develop, field-test, and evaluate a special education service delivery model for middle schools, with content teachers as the primary source of instruction.

**METHOD:** In Year 1, the project will focus on providing content teachers a structure for organizing their content-teaching. During Year 2, the study will investigate effects on systematic databased feedback on teachers' use of this structural framework. In Year 3, how teachers manipulate the two dimensions of the framework in their curriculum and within their interactive instruction to achieve changes in student perception and learning will be examined. In Year 4, a special educator will be added as case consultant within this package with a student progress monitoring system. The teacher will also be placed in the role of researcher to identify individually effective strategies within a component analysis, using individual student monitoring of learning outcomes and explicit consultation support systems. Finally, in Year 5, the manipulation of organized knowledge forms and interactive learning tasks will be synthesized in a consultation system and evaluated.

**ANTICIPATED PRODUCTS:** Dissemination activities will include: presentation at national conferences during all 5 years of the project; presentations at preconference workshops; publication of a number of research reports, monographs, and training modules; and teaching both methodology and findings from research in courses on-campus.

## **Project Departure: Designing Educational Programs Aligned with Reforms in Teaching and Uniform Restructuring in Education**

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GRANT NUMBER: H023R30026

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/97

### **ABSTRACT**

**PURPOSE:** This project will implement and explain the relationships among interdependent systemic processes and resource use strategies within school reform/restructuring to enhance system adaptability and inclusiveness as a means for achieving better educational outcomes for children with disabilities.

**METHOD:** Three important resource use strategies with extensive empirical support and widespread application will be explored including: team-building from within the organization development framework; consultation as practiced from a broad behavioral approach; and curriculum-based assessment. Particular



objectives to be sought among participating children will include presence and participation in school programs, independence and personal responsibility, skilled social behaviors, and improved literacy.

**ANTICIPATED PRODUCTS:** This project will provide systemic design features for assuring that primary school restructuring initiatives meet the needs of children with disabilities. The use of rigorous case study replications will both guide these efforts and provide valid design principles for schools initiating primary education reform and restructuring initiatives.

### **A State Evaluation of the Degree of Implementation and Effects of Three Service Configurations, General Education/Special Education**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159A30008

BEGINNING DATE: 10/01/93

ENDING DATE: 10/30/95

### **ABSTRACT**

**PURPOSE:** This project will study the roles, relationships, and responsibilities of the educators who teach in the most common configurations of special education service.

**METHOD:** All elementary, middle, junior high, and high schools in Colorado will be surveyed to determine the amount that each service configuration has available and what types of students with disabilities are served by each. Ten percent of teachers instructing grades 6 through 12 whose buildings have responded to the larger survey will be randomly selected for further investigation to determine what actually occurs in each of the three configurations (general education plus special education consultation, services in co-taught classes, and services in resource classrooms). A stratified random selection method will be employed to identify 120 classrooms identified by the larger state survey. Data gathered in these classes will provide in-depth information about teacher roles and responsibilities as well as the value of the nature of the curriculum taught, the type of instruction offered, and classroom affect.

**ANTICIPATED PRODUCTS:** Results of this study will: (1) provide information to guide general education/special education staffing configurations provided to students with moderate disabilities in Colorado; (2) provide information for preservice and inservice teacher education at the district and state levels; (3) inform local and state agencies as they develop policies; and (4) provide methodology and instrumentation for local and state agencies to conduct ongoing program evaluations.

## **The Quality Management and Practices Project (QMAP)**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023R20019

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will develop and implement a process for adapting and internalizing effective assessment and instructional practices for students with disabilities that will inform the ongoing broader school-based restructuring efforts in the four-school Powerful Schools Coalition (PSC).

**METHOD:** An organizational context will be developed to stimulate ongoing implementation of school innovation for students with disabilities. The PSC will develop a plan for systemic change to incorporate effective practices for students with disabilities in PSC restructuring efforts. Effective practices for students with disabilities will be designed, introduced, evaluated, refined, and incorporated in field-test classrooms within participating schools. Validated practices will then be selected for implementation throughout the PSC. Case studies will be conducted on the policy, organization, administrative, operational, and cultural features that enable schools to implement systemic changes.

**ANTICIPATED PRODUCTS:** The project will identify the mediating and bridging conditions that link effective teaching and learning practices with structural alterations that sustain positive student and teacher outcomes. The case studies will be a major product of the project, as they will describe components of the system and the culture of the schools that the schools choose to focus on as they incorporate these practices into the process of continuous improvement.

### **Shared Responsibility**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023R30029

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/97

### **ABSTRACT**

**PURPOSE:** This project plans to initiate and sustain systemic school change that supports the inclusion of students with disabilities in general education classrooms and in their communities.

**METHOD:** Through the process, members of the Alice Smith School community will collaboratively gather information about the systemic and organizational features of their school and community, describe goals and visions for both the school and for student outcomes, identify critical features that impact the full adoption of new ideas and best practices, and implement strategic action plans to restructure the system so that full inclusion and educational excellence are achieved. Intensive, ongoing evaluation will be used to assess and refine the restructuring model to develop a systematic yet flexible model that will be replicated in a second school in the third and fourth years of the project.

**ANTICIPATED PRODUCTS:** This project is expected to significantly contribute to knowledge about systemic features of schools that impact adoption of inclusive education best practices, and of planned educational restructuring. Dissemination of project results and findings will be achieved through a combination of conference presentations, journal articles, and replication efforts.

## **Research on Grouping Practices for Mainstreamed Special Education Students**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30013

BEGINNING DATE: 8/15/93

ENDING DATE: 8/14/96

### **ABSTRACT**

**PURPOSE:** This project will conduct an investigation of academic, social, and instructional outcomes as they relate to literacy instruction for students with learning disabilities mainstreamed in regular education classrooms organized either homogeneously or heterogeneously.

**METHOD:** The first study year will include a comprehensive survey of teachers', parents', and students' perceptions of grouping practices. Subjects will include 300 elementary teachers in grades 3 through 5, as well as one student with learning disabilities, one low-achieving, one average-achieving, and high-achieving students for each teachers' classrooms, as well as one of the parents of each of these students. Years 2 and 3 of the study will consist of longitudinal studies to follow 3rd-graders from each of the four student groups. In addition to quantitative analysis of data, individual students and teachers will be identified for more in-depth case studies using qualitative methodology.

**ANTICIPATED PRODUCTS:** This study will result in: (1) a more comprehensive understanding of grouping practices as they relate to academic and social functioning of mainstreamed students; (2) a better understanding of teachers' beliefs and knowledge relating to the literacy instruction of students with disabilities; (3) a more complete picture of parent and student attitudes toward grouping practices; and (4) a better understanding of grouping practices that effectively meet the needs of all students without inhibiting the progress of other students.

## Comprehensive Approach to Schooling Success

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GRANT NUMBER: H023R30037

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/94

### ABSTRACT

**PURPOSE:** This project will implement and institutionalize a comprehensive and coordinated service delivery model in a capacity-building process that enables schools to effectively and efficiently deliver education and related services responsive to student diversity.

**METHOD:** This program will contain three components: parental participation, a school governance team, and a mental health team. A dual focus will be placed on (a) enhancing instructional and administrative expertise among school staff (including regular education teachers and specialist teachers in relevant areas) and (b) the involvement of families and the community in implementing a comprehensive and coordinated approach to meet the related service needs of children and families in coordinated and helpful ways. During Phase 1, work will focus on establishing one demonstration school in each of the collaborating school districts. Extension, replication, and dissemination of the model will be the focus of Phase 2.

**ANTICIPATED PRODUCTS:** Project-related information will be disseminated through a variety of publications, training materials, and face-to-face presentations to a wide range of stakeholder groups, educators, practitioners, parents, policymakers, and schools of education in universities where teachers and administrators are being trained.

## A Study of Pullout Programs

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30075

BEGINNING DATE: 1/01/94

ENDING DATE: 12/31/94

### ABSTRACT

**PURPOSE:** This project will investigate the activities children miss when they are removed from their regular classrooms into a pullout program for special or compensatory education, as well as the instructional activities they participate in while they are pulled out.

**METHOD:** Using a database collected between 1983 and 1991 for a study of how children learn to read and apply their reading skills when learning science concepts, researchers will investigate the instruction that each child in a pullout program received, as well as the instructional activities the child missed. Data analysis will consist of two parts: descriptive summaries of the differences between pullout and regular classroom children in terms of the instructional and noninstructional activities they experienced, and regression analyses seeking to relate those activities to end-of-year reading achievement. The first part will result in profiles showing the amount of instructional time for the various classroom activities for children in both categories. In the second part, researchers will

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test whether the same regression relationships between activities and achievement apply in both groups, after controlling for entry ability, through explorations of whether differences in classroom experiences impact academic performance.

**ANTICIPATED PRODUCTS:** Information on activities missed and activities taught, coupled with findings for the difference that placement has made on students' achievement in reading, may provide insight into the success and failure of pullout programs as they exist today and therefore help us to make better informed decisions regarding the future of pullout programs. This is especially important as Chapter I reauthorization looms in the near future and movements are about to encourage inclusive programs in regular classrooms for children with a wide variety of special needs.

**Open Enrollment and Students with Handicaps: Issues, Implementation, and Policy**

GRANT NUMBER: H023C00004

BEGINNING DATE: 9/16/90

ENDING DATE: 9/15/95

**ABSTRACT**

**PURPOSE:** This project will conduct a 5-year naturalistic investigation in Minnesota on the effects of open enrollment in order to understand the benefits and problems that result from its implementation.

**METHOD:** In an effort to develop a set of guidelines, 13 studies have been designed to explore the issues and to arrive at implications for policy, research, and practice. These studies use eight primary methodologies (tracking, school district surveys, school interviews, parent/student surveys, parent interviews, observations, checklist completion, and school record reviews) to address specific research questions.

**ANTICIPATED PRODUCTS:** Outcomes include a knowledge and database, technical reports, and specific usable documents for policy makers.

## ***SECTION 6:***

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# ***SECONDARY EDUCATION AND POSTSECONDARY OUTCOMES***

## **Reasoning Strategies and Teaching Routines for Use in Mainstream Secondary Classrooms**

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GRANT NUMBER: H023C20094

BEGINNING DATE: 8/01/92

ENDING DATE: 7/31/95

### **ABSTRACT**

**PURPOSE:** This project will favorably affect the academic performance of students with learning disabilities and low-achieving students by having regular classroom teachers act as learning partners with the students and mediate student reasoning as they teach content information.

**METHOD:** Two reasoning strategies will be developed and validated. Learning partnership routines associated with teaching the reasoning strategies will be validated for use by students and teachers, and activities associated with the learning partnership routine will be developed and validated to facilitate independent student use of the strategies in individual and group settings. Effects of the teacher training program will be evaluated in terms of teacher implementation of the instructional model. Effects of the instructional model will be evaluated in terms of student performance on strategic reasoning, content measures, and motivational factors. There will also be an evaluation of the social validity of the instructional model for both teachers and students, measured by specially constructed surveys. In addition, descriptive studies yielding both quantitative data from teacher surveys and qualitative data from information received from focus group-type meetings with the teachers will be collected.

**ANTICIPATED PRODUCTS:** This project will show that gains in student performance can be achieved in the areas of reasoning skills, content knowledge, and learner motivation. Dissemination materials will include a position paper, separate reports presenting results of studies 1 through 3, and publication of teacher training procedures.

## **Promoting Social Relationships and Inclusion of Transition-Aged Youths into Employment Settings**

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GRANT NUMBER: H023C30008

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will test the efficacy of a series of strategies focused upon promoting social relationships and inclusion of transition-aged youths with moderate or severe disabilities.

**METHOD:** Through the introduction of the strategies in question, the program expects to increase social participation between youths and their coworkers, coworker acceptance, and positive self-perceptions by youths with disabilities regarding their level, frequency, and intensity of social inclusion and relationships with others. The project will describe the nature and development of social relationships between individuals with and without disabilities in integrated work



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settings using qualitative methodology. The efficacy of the series of strategies implemented will be field-tested via single-subject research designs. A videotape and resource manual will be designed and disseminated to consumers to describe the effective strategies for replication in other employment settings.

**ANTICIPATED PRODUCTS:** Dissemination efforts will include publishing research articles in selected rehabilitation and special education journals, producing and mailing project products to Regional Resource Centers and Regional Information Exchange Centers, and publishing descriptions of ongoing research and demonstration findings in a nationally-disseminated newsletter.

## **Dropout Prevention and Intervention Programs for Junior High School Students in Special Education**

GRANT NUMBER: H023K00017  
BEGINNING DATE: 9/01/90

ENDING DATE: 8/31/95

### **ABSTRACT**

**PURPOSE:** This project will develop and field-test interventions to support junior high school students with disabilities who are at risk of dropping out of school and increase the holding power of the schools they attend.

**METHOD:** Interventions will be directed toward the family, home, school, and community. Comprehensive strategies in each area will be integrated to meet individual students' needs. Three phases will be followed: intervention refinement, intervention implementation, and final follow-up, including dissemination. Two groups of students in each school will participate in interventions over a 2-year period.

**ANTICIPATED PRODUCTS:** Direct benefits are expected for students participating in the project. Anticipated benefits include reduced risk of dropping out of school, greater school achievement, and improved relationships with school, home, and community.

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**First Decade After Graduation: Qualitative Analysis of  
Postschool Outcomes for 1985 and 1990 Graduates**

GRANT NUMBER: H023C00079

BEGINNING DATE: 10/01/90

ENDING DATE: 9/30/95

**ABSTRACT**

**PURPOSE:** This project will examine how variables such as special education classification, socioeconomic status, and personal factors interact during the 5 to 10 years after high school. It will also suggest ways the key variables could be manipulated in secondary school programs to increase the likelihood of special education student making a successful transition to an adult occupation and lifestyle.

**METHOD:** Qualitative methods will be used in case-control studies to examine the interactions of factors that are not captured in strictly quantitative data. Logistic regression analysis will integrate quantitative and demographic data to develop a prediction equation for special needs students, and a computer simulation program will model outcomes dependent on key variables.

**ANTICIPATED PRODUCTS:** Areas of need typical of young people within disability groups will be revealed. The program will develop simulation models and databased guidelines for program changes in special education.

**General Education Development (GED) Success:  
Effective Instructional Interventions for Students with  
Disabilities**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023P30004

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

**ABSTRACT**

**PURPOSE:** This project will identify and document interventions that provide effective individualized instructional accommodations and supports for students with learning disabilities and behavior disorders in secondary GED preparation programs.

**METHOD:** A multiagency Advisory Task Force will identify: the needs and barriers to GED programs that students experience, effective preparation programs and instruction, and intervention strategies that will address student needs. Students with disabilities who have dropped out of Seattle schools will be recruited and assigned to one of three regular education GED programs: a computer-assisted curriculum for pre-GED and GED preparation; a test-based GED curriculum based on student strengths and test characteristics; or a program of instructional accommodation and support based on identification of barriers and successful program features. Budget strategies will be identified to capture the full time equivalents (FTEs) of all target students so that interventions can be supported without grant funds after the project ends. Each of these GED

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interventions will be evaluated to determine its effectiveness in preparing students to successfully complete the GED subtests. Students who successfully complete these interventions will be compared with noncompleters and a control group of nonenrollees on occupational, social, and personal outcomes.

**ANTICIPATED PRODUCTS:** Information on effective GED practices identified in this project will be disseminated to secondary and postsecondary program sites, professional and advocacy organizations, and state and federal offices.

### **Using Follow-Along Information Effectively**

GRANT NUMBER: H023C10041

BEGINNING DATE: 8/01/91

ENDING DATE: 7/31/95

### **ABSTRACT**

**PURPOSE:** This project will build upon a strong foundation of existing work, including a systems-change model called the Community Transition Team Model, and a follow-along model, both of which are currently being implemented by the applicant on a state-wide basis in Oregon.

**METHOD:** The project involves: (1) preliminary development of methods and materials for linking follow-along information to program improvement efforts; (2) demonstration and evaluation of the methods and materials in Oregon, followed by appropriate modification; (3) replication and evaluation of the methods and materials in a second state, followed by appropriate modification; and (4) national dissemination of project findings, methods, and materials. The primary subjects for both the Oregon demonstration and the subsequent replication are leaders and members of "transition teams." Thirty-five teams currently exist in Oregon with a total membership of approximately 500 providers and consumers of secondary special education and transition services. Project implementation involves a very active collaboration between the University of Oregon, the Oregon Department of Education, and a state-wide network of transition teams.

**ANTICIPATED PRODUCTS:** Dissemination of project methods and materials to interested SEAs throughout the country will involve a two-step procedure: first, a national symposium will be held to present the model to SEA staff who are responsible for secondary special education and transition programs; following the symposium, regional workshops will be conducted in five regions of the country to train SEA staff.

## **Cross Validating the Correlates of Postschool Adjustment**

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GRANT NUMBER: H023A30029

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will expand upon the current knowledge base of postschool predictors, by utilizing three extant databases to produce and cross-validate a comprehensive empirical follow-along model of transition.

**METHOD:** The project will replicate and cross-validate the analyses from the Oregon and Nevada follow-along projects, using an analogous data set from Arizona, in order to examine the stability of the findings that pertain to the nature of transition outcomes and variables that predict these outcomes. The same instruments, with minor modifications, have been used to collect information on all three state-wide samples. Reports will be developed and disseminated concerning the implications of project findings for transition planning, program improvement, and policy development that pertains to secondary special education and postschool adjustment of students with disabilities.

**ANTICIPATED PRODUCTS:** Outcomes of this project will extend the current knowledge about the school and postschool outcomes of students with disabilities who are in transition from school into adult roles in their communities. Interpretation of these findings will be disseminated through a variety of reports addressing ways of improving the school experiences and postschool outcomes of students with disabilities in transition.

## **Defining Conditions for Inclusion of Students with Disabilities in Secondary Schools Through an Evaluation of Four Extant Databases**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30063

BEGINNING DATE: 1/01/94

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will examine and better understand the secondary content class setting as an inclusive placement option for students with disabilities through the analysis of a database pertaining to secondary regular class teachers and settings.

**METHOD:** Four dimensions of the regular content class will be explored: (1) the selection and coverage of curriculum; (2) the work required of students; (3) the methods used for evaluating knowledge and skill mastery; and (4) the accommodations for students with disabilities in the context of methods used for group instruction. Across these four dimensions, teacher beliefs and actions will be identified through the review of their publicly expressed statements, privately expressed statements, teaching practices, and materials and products

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collected in their classes. Data will be subjected to qualitative and quantitative analysis. Differences among the four dimensions will be identified between social studies and science classes and middle school and high school classes.

**ANTICIPATED PRODUCTS:** Results of this effort should yield a knowledge base that will facilitate the future development of interventions and teacher training programs for inclusive regular education secondary classes.

## **The Social Network Pilot Project for Students with Visual Impairments**

GRANT NUMBER: H023A30108

BEGINNING DATE: 9/01/93

ENDING DATE: 3/01/95

### **ABSTRACT**

**PURPOSE:** This project will examine how adolescents and young adults who are visually impaired spend their time engaged in academic, social, daily living, and vocational pursuits.

**METHOD:** Quantitative and qualitative analyses between matched pairs of visually impaired and sighted adolescents will empirically describe factors that may contribute to successful or unsuccessful adult living and working experiences for these students. In addition, differences and similarities between students with visual impairments and their sighted peers will be investigated. In the first project phase, co-investigators will develop and field-test instruments necessary to complete Study 1, including four separate student/parent interview questionnaires and a time diary format. Sixty students will be identified as study participants. Participants will be divided among blind, low vision, and sighted students. The second project phase will involve the major data collection process for Study 1, including the above-mentioned instruments and a series of three telephone interviews. Phase 3 will consist of Study 2, a qualitative study involving 9 students from the quantitative study. An in-depth ethnographic analysis and social history will be conducted on all participants, with an observation protocol implemented to target specific social, vocational, and daily living indicators that influence transition planning and implementation for students with visual impairments.

**ANTICIPATED PRODUCTS:** Project results will systematically document the psychosocial, ecosocial, and experiential learning factors that appear to lead to successful transition processes for students with visual impairments. Findings will be disseminated through conference presentations, journal articles, and newspaper stories authored by the co-investigators. It is anticipated that this pilot study will set the stage for a more extensive and longer-term project in the future.

## **A Study of Variables That Influence the Outcomes of High School Students with Disabilities in Regular Education Settings**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H159A30009

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will conduct a study that will increase local district capacity to systematically monitor the outcomes achieved by high school students with disabilities in regular education placements on an ongoing basis and to determine factors that correlate with student success.

**METHOD:** The study will be conducted in five New Hampshire high schools involving approximately 700 students with disabilities in regular education placements and 4,500 regular education students. The study will determine the extent to which the outcome of high school students with disabilities in regular classroom placements are comparable to their peers. The study will further examine the influence of the following types of student and educational process variables on student outcomes -- gender, economic level, and family structure; the type of regular placement and kinds of in-classroom services provided; grouping patterns and instructional practices used in regular education placements; participation in nonspecial education intervention programs; postschool aspirations; the amount of time spent working, doing homework, or watching television; prior retention; and prior participation in early childhood/intervention programs.

**ANTICIPATED PRODUCTS:** The Center for Resource Management (CRM) will be contracted to conduct this study. CRM has extensive experience in helping schools access and use student outcome data for program and school improvement, and has developed a Student Outcome Information System utilizing regional database software that generates student outcome profiles to facilitate ease of use by school staff. This system also has the capability to relate student outcome data to a wide range of student and educational process variables.

## ***SECTION 7:***

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# ***SERIOUS EMOTIONAL DISTURBANCE AND BEHAVIORAL DISORDERS***



## **Project EXCELLENCE: Exceptional Children Enrolled in the Least Restrictive Learning Environments Made Notably Cost-Effective**

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GRANT NUMBER: H237B20025

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will address the problem of mainstreaming for children and youth with emotional or behavioral disorders by: (1) obtaining waivers for the finance structure and establishing alternative educational programs, and (2) developing, implementing, and monitoring individual student transition plans to least restrictive community environments during the implementation phase.

**METHOD:** A model planning process will be created, including the development of alternative funding patterns to encourage least restrictive environment placement, development of a transition planning process, and creation of a transition planning document. Four separate record-keeping documents will be maintained for grant administration, formative process assessment, summative objective evaluation, and individual student data. Staff will design appropriate interventions, primarily ecological/behavioral, at the hospital, at participating schools, and in receiving communities. Appropriate Individualized Education Plans (IEPs) will be generated for each student, and parents and families will be involved in both the planning and implementation of the project.

**ANTICIPATED PRODUCTS:** Written products documenting project activities and results will include a formal evaluation report, a more user-friendly replication guide, and articles by project staff to be submitted for publication in professional journals. Findings will also be presented at least one state-wide or national conference.

## **Enhancing Professional Knowledge, Skills, and Strategies: Project CROSS-Training**

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GRANT NUMBER: H237D20001

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will improve services for children and youth with serious emotional disturbance by providing a comprehensive cross-training program to "postentry" administrators, teachers, and direct service providers.

**METHOD:** The training will include three innovative features: (1) a multidisciplinary approach focused across service delivery systems; (2) a peer training approach that allows local professionals to conduct training workshops and provide support to teachers and other service providers; and (3) a mechanism for encouraging "ownership" of the training and support model to decrease attrition and burnout. Through the use of a Delphi survey of 100 members of

the Council for Children with Behavioral Disorders (CCBD), knowledge and skills needed by postentry personnel to enhance collaboration and improve services will be identified. A concept mapping technique incorporating salient skills will be employed to develop a cross-agency staff development model. Three studies will be performed to examine characteristics, propriety, and efficacy of the training. Finally, in order to investigate the effectiveness of training in decreasing burnout and promoting motivation and commitment, the program will perform a correlational study in which participation in training will be correlated with responses to survey items.

**ANTICIPATED PRODUCTS:** In addition to direct impact on participating professionals and their students, the project will gather and disseminate information on the project and its findings by means of conference presentations and publications. Dissemination products such as training manuals, implementation guides, and videotapes will be made commercially available.

### **School Preparedness for Promoting Personal and Social Development Project: TEACH**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237C20015

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will develop and test a school-based, proactive approach toward the personal and social development of elementary school students with emotional and behavioral problems.

**METHOD:** Outcomes related to social and personal development of elementary age students will be identified and defined. Planning teams of school and community personnel will reorient an elementary school to proactively promote students' personal and social development. A comprehensive school-based model will be developed that aligns mental health and educational services at each grade level, and the program will be implemented with children with emotional and behavioral problems in regular education settings. Assessment efforts will probe impact on students' personal and social development, long-term effects on one cohort of participants, and the feasibility of implementing the project in other elementary schools.

**ANTICIPATED PRODUCTS:** Teachers, parents, and community agency personnel are expected to benefit from the opportunity to work together in a coordinated service provision effort. Educational outcomes, measures, findings, and curricular designs will be disseminated nationally.

## **School Preparedness for Promoting the Personal and Social Development of Students with Emotional and Behavioral Problems Including Those with SED**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237C20003

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/93

### **ABSTRACT**

**PURPOSE:** This program will provide educational experiences through a novel social science curriculum that is explicitly designed to promote the personal and social development of junior high school students with emotional and behavioral problems including those with serious emotional disturbance (SED).

**METHOD:** Through experiential, hands-on activities, teams of students with disabilities and nondisabled students will learn basic principles governing human behavior that relate to the social, perceptual, cognitive and behavioral deficits of students with emotional and behavioral problems. By structuring the environment so that these students can learn important social skills and be responded to in positive ways as they acquire new skills, it is expected that these students will become more self-efficacious and show improvements in their social status and relationships, with a concomitant decrease in aversive, maladaptive behaviors. A team of teachers will collaborate to integrate the curriculum with science, social studies, and math, including a component providing specific interventions for reducing maladaptive behaviors. The project will be initially implemented in a segregated school for students with serious emotional and behavioral disorders, to be expanded in the second year to a junior high school where students with emotional and behavioral disorders are mainstreamed. In the third year the program will be expanded for use with high school students.

**ANTICIPATED PRODUCTS:** The social science curriculum will be packaged for widespread dissemination, including teacher and student manuals and workbooks. The proposed project is expected to produce student gains in content knowledge, social skills, self-efficacy, and self-esteem, and teacher gains in level of willingness and skills needed to work effectively with SED students in mainstreamed settings.

## **Enhancing Professional Knowledge, Skills, and Strategies to Improve Services to Adolescents with Serious Emotional Disturbance (SED)**

**PRINCIPAL INVESTIGATOR:**

Bullis, Michael  
Western Oregon State College  
Teaching Research Division  
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Monmouth, OR 97361  
503-838-8775

GRANT NUMBER: H237D20010

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will develop a functional work-oriented curriculum and service system for students with severe emotional disturbance (SED).

**METHOD:** At the start of each project year, staff will work at each of three school sites to identify staff and program development needs through an empirical decision-making process. Based on these findings, project staff will provide training to the school staff, direct experience in model vocational and transition projects, and ongoing staff support and consultation when personnel return to their schools' programs. An effort will be made to incorporate staff from community-based agencies (including mental health and vocational rehabilitation) from each locale in the program development and service delivery efforts. A plan for program change will be developed at each site, and monies will be allocated in line with these plans. Thus, each site will develop a tailored secondary program for youth with SED that will be supported by project staff and resources.

**ANTICIPATED PRODUCTS:** The training procedures developed in this project and the results of the interventions will be summarized and disseminated in several forms. A procedural manual for school sites that want to revise their secondary programs will be developed, and staff will publish a monograph on results of the project. The project will also make use of varied dissemination channels (publications, presentations, and newsletters) to insure that information on the project reaches the broadest possible audience, including parents, educators, and community agency professionals.

## **Investigation of the Institution-to-Community Transition Experiences of Adolescents with Emotional and Behavioral Disorders**

### **PRINCIPAL INVESTIGATOR:**

Bullis, Michael  
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Teaching Research Division  
345 North Monmouth Avenue  
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503-838-8775

GRANT NUMBER: H023C30049

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/98

### **ABSTRACT**

**PURPOSE:** This project will conduct a follow-along investigation of the institution-to-community transition of adolescents with emotional and behavioral disorders (EBD), who have been incarcerated for their extreme antisocial behaviors.

**METHOD:** Data on roughly 300 to 400 adolescents with EBD will be gathered on their release from institutional facilities in the state of Oregon. At referral, demographic, SES, level of service, and social skill rating forms will be completed on each person. Between three and nine interviews will be administered to each individual by telephone at 6 month intervals. Interview questions will pertain to subjects' vocational, educational, social, independent living, and general community adjustment. Similar interviews will be administered to subjects' parent/guardian and probation/parole officers. Employment data will also be checked yearly with a state-wide database. Data will then be examined using logistic regression techniques and LISREL procedures to examine relationships among multiple predictor and outcome constructs.

**ANTICIPATED PRODUCTS:** The project hopes to establish baseline data on the adjustment of individuals exiting these institutions. The participation of key state level administrators is expected to substantially augment dissemination plans. By disseminating information on the findings and procedures employed in this project, the project hopes to instigate similar projects in other regions to improve the adjustment and quality of life among this population.

## **Designing Educational Support Teams Through Interagency Networks for Youth with Serious Emotional Disturbance (DESTINY-SED)**

### **PRINCIPAL INVESTIGATOR:**

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Keene State College  
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Keene, NH 03431  
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GRANT NUMBER: H237D30012

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

### **ABSTRACT**

**PURPOSE:** This project will provide training and support for families and professionals in the fields of education, social work, and mental health to improve services for children and youth with serious emotional disturbance.

**METHOD:** In each of six communities, a research team from the Institute on Emotional Disabilities will work with the middle schools and the local Child and Adolescent Service Systems Program (CASSP) teams to collaboratively identify staff development needs. Staff development objectives will be phrased in terms

of knowledge, skills, and strategies that project participants will be expected to use in their practice with professionals, students, and families. Particular objectives will focus on the areas of collaboration among project participants and on ways to apply knowledge, skills, and strategies. Student progress will be closely monitored through data on school attendance and involvement, social competence, and achievement as well as by project staff and teacher rating scales, in-school record reviews, and responses from community agencies and parents.

**ANTICIPATED PRODUCTS:** Staff development is expected to motivate and empower participants to accomplish new goals in the workplace, and renew their commitment to achieve desirable outcomes for youth with serious emotional disturbance. By focusing on teachers and students in the middle school years, the project intends to impact on students' social and academic involvement in school, and better prepare students for high school completion, vocational placements, and entry into productive adult living.

### **Building a Model for Training Adolescents with Serious Emotional Disturbance to Use and Generalize Verbal Social Skills**

**PRINCIPAL INVESTIGATOR:**

Deitz, Diane  
Educational Research and  
Services Center, Inc.  
425 East Fisk Avenue  
Dekalb, IL 60115  
815-756-2305

GRANT NUMBER: H023C00017

BEGINNING DATE: 9/01/90

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This project will conduct research directed toward determining which training procedures lead to effective acquisition and generalization of social skills.

**METHOD:** The effectiveness and efficiency of five training procedures will be determined, a comprehensive training model for teaching social skills to adolescents with serious emotional disturbance (SED) will be developed, and the effectiveness and efficiency of the comprehensive training model evaluated. Six studies will be conducted over a 4-year period. The research will be conducted in public middle and junior high schools.

**ANTICIPATED PRODUCTS:** The comprehensive training model will train adolescents with SED in necessary social skills.

## **Research on Positive Behavioral Interventions for Elementary School Students with Severe Emotional and Behavioral Challenges**

### **PRINCIPAL INVESTIGATOR:**

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University of South Florida  
Florida Mental Health Institute  
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GRANT NUMBER: H023C10102

BEGINNING DATE: 8/07/91

ENDING DATE: 8/06/94

### **ABSTRACT**

**PURPOSE:** This research project will develop, evaluate, and disseminate information regarding positive interventions for managing the behavior problems of elementary school children who have serious emotional and behavioral challenges (SED).

**METHOD:** Participants will be selected from a pool of 65 children with SED ages 5 to 12 being served in eight classrooms in the Hillsborough County Public Schools, Florida. Of the eight classrooms, six are located on two regular public school campuses and two are on the campus of a school operated in affiliation with the Florida Mental Health Institute. The first research objective is to collect functional assessment information on the problem behaviors of at least 20 students. This information will help to establish the foundation for subsequent studies and to identify a number of potential participants for further analyses. The second objective will involve at least six intervention studies on the effects of curricular modifications on the behavior problems and adaptive responding of students with SED. A series of investigations employing single-case methodologies will address variables related to: (1) the "meaningfulness" of curricular content, (2) opportunities for students to exert some choice-making control over their activities and rewards, (3) task interspersions for curricular requirements identified as essential yet individually challenging, and (4) the scheduling of activities within and across a student's day. All of these (and other) studies will be conducted within the context of individualized functional assessments and to ascertain the value of the functional assessment data to the individually prescribed interventions. Finally, the participating students will be followed over the course of the 3-year project in order to determine the longitudinal (meaningful) outcomes, especially as they pertain to the research-based interventions.

**ANTICIPATED PRODUCTS:** Information dissemination outcomes will include: journal publications, conference presentations, regional workshops, a validated manual for educators, and detailed descriptions of the experiences of individual children over the 3-year period.



## **Project WRAP: LADSE's System of Education and Support for Children with SED**

**PRINCIPAL INVESTIGATOR:**

Eber, Lucille  
Lagrange Area Department of  
Special Education  
1301 West Cossett Avenue  
Lagrange, IL 60525  
708-354-5730

GRANT NUMBER: H237B10020

BEGINNING DATE: 10/01/91

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will design a comprehensive, coordinated system of community and school-based services for students with serious emotional disturbance (SED).

**METHOD:** During the 1990-91 school year, several agencies collaborated with the LaGrange Area Department of Special Education Illinois, in the implementation of a pilot Wrap Around Program (WRAP), an interagency collaborative approach to providing services for students with SED and their families in normalized school and community settings. The primary focus of this project is to evaluate and expand the WRAP model. Areas of study for system improvements will focus on collaboration between agencies to increase community-based options and resources for children with SED and their families, including family support and advocacy, respite and foster options, increased mental health support in regular school settings, and models which "wrap" services around children and their families in normalized community and school environments. A Coordinating Council will be responsible for the assessment of existing interagency programs and services, determination of needs, and development of a design for a coordinated system. Leaders and decision makers of state and local agencies and parents will be involved. A Case Coordination Committee will assess existing case management services and design a more coordinated and comprehensive system for implementation. Other project components include development and implementation of parent advocacy; support and training programs; evaluation and expansion of peer leadership programs; improved interagency case management system including the design of a comprehensive plan of service; and development of interagency training programs.

**ANTICIPATED PRODUCTS:** Dissemination of research findings will include a working papers series, training materials, conference presentations, workshops, site visits, and other papers for publication.

## **A Family-School-Community Alliance to Reduce Out-of-Community Placements for Students with Serious Emotional Disturbance (SED)**

### **PRINCIPAL INVESTIGATOR:**

Epstein, Michael  
Educational Research and  
Services Center, Inc.  
425 Fisk Avenue  
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GRANT NUMBER: H237E20020

BEGINNING DATE: 11/01/92

ENDING DATE: 10/31/95

### **ABSTRACT**

**PURPOSE:** This project will reduce out-of-community placements for children and youth with SED by developing and implementing a collaborative alliance among the family, the local special education association, and various social and mental health agencies.

**METHOD:** Major components of the comprehensive system of education and care to be developed will include: (a) the development of an interagency collaboration model comprised of representatives from parents and the primary educational, social, and mental health agencies in the community; (b) agreement about which students will be served, principles of care, and written joint agreements; (c) implementation of a comprehensive needs assessment of children, family, and service providers; and (d) development of a plan of action to design a comprehensive system. The system will be based on principles of individualized care and family involvement. Individualized care will emphasize unconditional care, intensive case management, individual planning teams, flexible funding, personal futures planning, and cultural competence, while family involvement will emphasize family empowerment and family services.

**ANTICIPATED PRODUCTS:** The project will create an adjunct committee of those interested in programs for children and youth with SED and will establish regular written communication with each group via a biannual newsletter. In addition, a series of working papers and position papers will be developed and made available to national organizations and clearinghouses of information; reports on project results will be presented at various professional meetings, and manuscripts will be submitted to appropriate journals.

### **Training Regional Interagency Staffing Teams**

### **PRINCIPAL INVESTIGATOR:**

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Services Center, Inc.  
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GRANT NUMBER: H237D30030

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This research project will develop, implement, and evaluate a training program to prepare direct service providers and educators from various social service agencies to collaborate in serving students with serious emotional disturbances and their families.

**METHOD:** Interagency teams consisting of an educator, a mental health counselor, a social worker, a probation officer, a rehabilitation counselor, and a substance abuse counselor, will be trained to plan, implement, and monitor individualized treatment programs. Additionally, parents will be trained as part

of the interagency teams to serve as advocates for the students and their families. Team members will be trained to: (a) collaborate with service providers from other disciplines; (b) contribute to the development and implementation of intensive case management plans; (c) involve families via empowering parents; (d) be knowledgeable about information specific to local service agencies; and (e) be knowledgeable about a conceptual model of interagency collaboration.

**ANTICIPATED PRODUCTS:** Approximately 18 interagency teams will be trained over the course of the project's 3 years.

### **Task Demands Placed on Secondary-Level Students with Serious Emotional Disturbance by Content Area Textbooks: Effects on Academic Achievement and Maladaptive Behavior**

**PRINCIPAL INVESTIGATOR:**

Harniss, Mark  
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503-346-0981

GRANT NUMBER: H023B30019

BEGINNING DATE: 9/01/93

ENDING DATE: 2/28/95

### **ABSTRACT**

**PURPOSE:** This project will investigate the effects of content area task demands (specifically, content organization and instructional strategies) on the academic achievement and maladaptive behavior of students with serious emotional disturbance (SED).

**METHOD:** Forty 8th-grade students diagnosed as having SED who receive history instruction in self-contained or resource classrooms will serve as subjects for this investigation. A United States history text being developed at the University of Oregon will be compared to a traditional United States history text on behavioral and academic measures. Specific research questions will be: (1) Is there a significant difference in student performance on measures of content area learning and maladaptive behavior between students who use a text that is carefully organized around main ideas and principles and students who use a traditional text? (2) Is there a significant difference in student performance on measures of content area learning and maladaptive behavior between students who use a text that is carefully organized around main ideas and principles with content-specific instructional strategies and students who use a traditional text with content-specific instructional strategies?

**ANTICIPATED PRODUCTS:** Findings from this research will build an empirical base for selection and implementation of content area texts and instructional strategies for students with SED. The use of appropriate texts and strategies may enhance the likelihood of academic and behavioral success in schools for students with SED. It will also enable teachers to design programs that focus on both students' behavioral needs and their academic needs.

**Facilitating Interagency Services for Serious  
Emotionally Disturbed Children in  
Nashua, New Hampshire**

**PRINCIPAL INVESTIGATOR:**

Harvey, Virginia  
Nashua Public Schools  
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GRANT NUMBER: H237B20030

BEGINNING DATE: 1/01/93

ENDING DATE: 6/30/94

**ABSTRACT**

**PURPOSE:** This project will provide "wrap-around" services for children and adolescents with severe emotional disturbance (SED) and their families.

**METHOD:** The project will work to increase interagency collaboration among educational, community mental health, and recreational facilities in the treatment and case management of children and adolescents with SED. Availability, quality, and access of community mental health and recreational services will be increased for children and adolescents with SED and their families, particularly to those from inner city, disadvantaged, and minority backgrounds. A focus will be placed on improvement of self-esteem, internal locus of control, and behavior. Staff will also work to improve the problem-solving skills, parenting skills, and networking ability of parents of children with SED through interagency parent support group and family therapy participation.

**ANTICIPATED PRODUCTS:** Following implementation of this project, reports describing the procedures and findings will be disseminated locally, state-wide, and nation-wide. Reports will be delivered to local taxpayers, superintendents and assistant superintendents, directors of special education, selected state agencies, psychologists, and school psychologists.

**Program for Children and Youth with Serious  
Emotional Disturbance (SED)**

**PRINCIPAL INVESTIGATOR:**

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District  
Special Education Department  
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GRANT NUMBER: H237B10003

BEGINNING DATE: 10/01/91

ENDING DATE: 12/31/94

**ABSTRACT**

**PURPOSE:** This project will design, implement, and evaluate a comprehensive interagency model for serving children with SED and their families. It will demonstrate that parents, school staff, and representatives from multiple agencies can work effectively to design and provide a comprehensive, community-based, client-directed service system through coordination of shared responsibilities for service delivery.

**METHOD:** The project will incorporate and improve upon already developed successful collaborative processes and will add a case management component to the service delivery system for children with SED in Linn County, Oregon. Four processes will provide the framework for designing, implementing, and evaluating the comprehensive model: the Project Advisory Board, the "Continuum of Services for Managing Student Behavior" model, the Youth Service Team

**PRINCIPAL INVESTIGATOR:**

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staffing process, and the addition of case management services. The planning process will be coordinated through the Project Advisory Board, composed of parents, child advocates, consumers of mental health services, school administrators, and community service agency directors. Project goals are to: develop a comprehensive array of services; establish an interagency collaborative process for developing a comprehensive individual family service plan for each child with serious SED; design a process for screening identification and early intervention; design a mechanism for service plan coordination and modification; and institute a financing plan to support implementation of the service delivery plan.

**ANTICIPATED PRODUCTS:** The principal product outcome is the refinement and further development of a comprehensive education and support system for children with SED.

**Project Belief**

GRANTNUMBER: H023K0001

BEGINNING DATE: 9/01/90

ENDING DATE: 8/31/95

**ABSTRACT**

**PURPOSE:** This project will address the problem of students labeled learning disabled and severely behaviorally disordered who drop out of school.

**METHOD:** The intervention strategies will consist of 2 years of intensive remedial reading and writing, culturally sensitive instructional procedures, matching with mentors, a 10-hour school day, self-esteem building, structured weekends, provision of case management support to the family for accessing needed social services, and structured summers. For those who desire to go to college, intervention will continue with a full mainstream program. For those who do not achieve this level, an apprenticeship program will be implemented.

**ANTICIPATED PRODUCTS:** The project will result in an increase in the number of target group students who graduate from high school.

## **An Ecobehavioral Approach for Assessment and Prevention of Behavior Disorders for Young Children and Their Families**

**PRINCIPAL INVESTIGATOR:**

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University of Kansas  
Institute for Life Span Studies  
1052 Dole  
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913-321-3143

GRANT NUMBER: H237E20034

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will address the critical needs of students from impoverished backgrounds through investigation of an early prevention and intervention program for children living in poverty, including minority groups, who exhibit serious behavior and conduct disorders.

**METHOD:** An ecobehavioral assessment model will be used to research the components of an early prevention and intervention program via (a) a systematic observation of child-parent, child-teacher, and child-peer interaction; (b) an analysis of variables contributing to patterns of antisocial and inappropriate behavioral patterns; and (c) the measurement of long- and short-term treatment effects. Family-focused components of the early prevention program include parent training and support in positive parent-child relationships, behavior management strategies, social skills building, parent-supported learning via priming and tutoring procedures, and networking with community agencies for necessary services. Peer-focused components include procedures to improve both social competence (through social skills training with peers and classroom management) and readiness to learn (through peer-mediated learning groups and survival skills training). Involved in the investigation will be 150 students drawn from an inner-city area of Kansas City, Kansas with a large representation of families in the low socioeconomic area and minorities. Experimental procedures will include the identification of target and control families; training, implementation and evaluation of treatment effects; ecobehavioral assessment and analysis; a comprehensive battery including multiple measures; continued evaluation across subsequent project years to determine child/family outcomes; and national dissemination.

**ANTICIPATED PRODUCTS:** Dissemination of project results will include presentations at state and national conferences, written reports for specific parties, organizations, and networks, submissions to professional publications, and incorporation into university coursework.

**PRINCIPAL INVESTIGATOR:**

Keirstead, John  
Maine Department of Education  
Division of Special Education  
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**Kids in the Middle: A Study of Children, Ages 11-15,  
Diagnosed as Seriously Emotionally Disturbed**

GRANT NUMBER: H159F20009

BEGINNING DATE: 3/01/93

ENDING DATE: 8/01/94

**ABSTRACT**

**PURPOSE:** This study will examine the current status of identification services, programming, parent training, and educational outcomes among children with serious emotional disturbance (SED) in Maine.

**METHOD:** Existing databases within the Maine Department of Education, including the student specific information base reflecting age, gender, exceptionality, placement, and exit data for children served under both Part B, IDEA and Public Law 89-313 or Chapter 1 will be utilized to respond to research questions. Additionally, data are available to reflect individual children on "monitor status" as they exit special education into regular education. The primary database provides ready access to the specialty credentialing of public education teachers and administrators in both regular and special education, as well as providing similar data including operational costs for residential treatment facilities and other special purposes facilities operating under state approval. In addition to a comprehensive literature search, a limited record review and anecdotal information gathering through survey and interview approaches will be implemented as key factors are verified through data analysis.

**ANTICIPATED PRODUCTS:** Products will include topical summaries focusing on individual issues as well as a final summary report on the investigative activities conducted under this study and the generalizable findings as developed.

**Facilitating Interagency and Private Sector Resource  
Efforts to Improve Services**

**PRINCIPAL INVESTIGATOR:**

King, Cher  
Ogden City Schools  
Department of Special Education  
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GRANT NUMBER: H237B20012

BEGINNING DATE: 10/01/92

ENDING DATE: 6/30/94

**ABSTRACT**

**PURPOSE:** This project will operate two behavior disorder units for elementary students, one for grades K-3 and the other for grades 4 and 5.

**METHOD:** Each of the units serve 12 students at any point in time. The total program consists of three parallel curricula: (1) academic programming based on the state core curriculum (and/or adapted versions based on individual student needs); (2) activity group therapy including a strong emphasis on social skills development; and (3) a parenting component including weekly parent involvement in their childrens' psychoeducational program as well as participation in structured parenting classes. The units are located at an elementary school building and are operated jointly by school personnel and staff from the local mental health agency. Staff involved with the students on a daily basis include two special education teachers, two teacher's aides, two mental health Masters'



therapists with Master's degrees, and two mental health aides. As students are mainstreamed into regular education classes, pertinent regular education staff would also become involved.

**ANTICIPATED PRODUCTS:** Benefits from this project include the district's ability to provide far more comprehensive services to students with behavioral disorders and their parents, and to do so in a setting that facilitates generalization of treatment gains to natural settings. Intensified service delivery allows for a larger numbers of students to be served since the number of students able to exit the program would increase.

## **Development and Support for Enhancing Professional Knowledge, Skills, and Strategies**

**PRINCIPAL INVESTIGATOR:**

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Wilderson, Frank  
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Unique Learner Needs Section  
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GRANT NUMBER: H237D20005

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will develop, implement, and evaluate training activities to support the Child and Adolescent Service Systems Program (CASSP) in providing training activities for teachers of children with serious emotional disturbance.

**METHOD:** A project coordinating committee will be established to facilitate implementation of the project activities, to monitor progress on project goals and objectives, and to assure administrative support and involvement in the process. Two days of inservice training in an action research model will be provided, and through the action research process a plan will be developed to collect and synthesize existing data, as well as new data concerning training needs, attrition, and burnout. The action research process will be extended to develop, implement, and evaluate an inservice training plan for 8 additional days of training including data collection concerning skill acquisition and outcomes related to service provision.

**ANTICIPATED PRODUCTS:** Materials for dissemination will include: (a) a model for developing a needs assessment, implementation plan, and evaluation; (b) materials generated as a result of the inservice training; (c) resource list for inservice training; (d) a dissemination plan; and (e) summaries of outcomes and impact of the project in total.

## **The Development and Validation of a GED Proficiency Attainment Model for Students with Learning Disabilities and Severe Emotional Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023P30008

BEGINNING DATE: 8/01/93

ENDING DATE: 7/31/94

### **ABSTRACT**

**PURPOSE:** This program will identify barriers to GED program participation and completion for students with learning disabilities (LD) and severe emotional disturbance (SED) who drop out of high school. The project will also design, implement, and evaluate an intervention model to accommodate these students' needs related to completion.

**METHOD:** In the first phase of the project, those involved in the GED process will participate in interviews, focus group meetings, and/or observations. These data sources will provide information describing the current needs of students and instructors in GED programs. In collaboration with those involved, an intervention package will be designed for implementation and evaluation in the second research phase. One product will be an intervention model generalizable to other GED programs. The intervention model will address academic and self-management skills as major areas influencing GED participation and completion.

**ANTICIPATED PRODUCTS:** The instructional model will consist of three packages: a Recruitment Package; a GED Preparation Package (consisting of the Strategies Application Component, the Strategic Tutoring Component, the Content Enhancement Component, and the Self-Management Component); and a Test Performance Package. In each area, learning and self-management strategies and related needs of students with LD and SED will be addressed in conjunction with the teaching skills and programmatic influences on participation and completion.

## **Developing Interagency Collaboration Skills for Transition of SED Students to Less Restrictive Environments**

**PRINCIPAL INVESTIGATOR:**

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Graduate School of Education  
Psychology in Education Division  
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215-573-3276

GRANT NUMBER: H237D20006

BEGINNING DATE: 1/04/93

ENDING DATE: 1/03/96

### **ABSTRACT**

**PURPOSE:** This project will design, implement, and evaluate the effects of a training program to develop knowledge, skills, and strategies for collaboration between education and social service personnel in the transition of 16 students with serious emotional disturbances (SED) to less restrictive educational settings.

**METHOD:** A competency-based training program will be developed and implemented with 20 regular education, special education, related services, and social services personnel. During each training session, material and concepts will be illustrated with videotaped vignettes; practice exercises will be presented for role playing; and participants will view video playbacks of examples of their positive performance. The program will then evaluate the effectiveness of these staff development methods in promoting acquisition of collaboration skills, and the generalization of those skills during interagency team meetings to coordinate services for the transition of SED students. In addition, the program will assess outcomes of collaboration on improved services and on professionals' motivation and sense of empowerment.

**ANTICIPATED PRODUCTS:** In addition to directly providing services to SED students, the program will contribute to a greater understanding of the knowledge, skills, and strategies underlying effective collaboration. Project findings will be disseminated via reports to consumer groups, publication of articles and a multimedia training package, and a conference sponsored by the Devereux Foundation.

## **Improving the Interactive Teaming Skills of Professionals and Family Members Serving Children and Youth with Serious Emotional Disabilities**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237D30059

BEGINNING DATE: 6/10/93

ENDING DATE: 12/31/95

### **ABSTRACT**

**PURPOSE:** This project is designed to develop and validate an innovative approach to the support and inservice training of professionals and families who are engaged in the planning and delivery of interagency community-based treatment to children and youth with serious emotional disturbance (SED).

**METHOD:** The project will improve community-based service delivery to children with SED and their families through the development and validation of inservice training packages that focus on interactive teaming. In reaching this

goal: team development issues faced by professionals and family members serving this population and support needed for effective team functioning will be identified; training modules for professionals and parents will be developed and validated; formative and summative evaluations will be conducted on the effects of training; and two members from each Regional Interagency Council will receive training in the implementation of training modules.

**ANTICIPATED PRODUCTS:** Validated training modules will be disseminated throughout Kentucky for implementation with parents, and the use of these training modules (as well as their impact on interagency child service planning team functioning) will be evaluated. These modules combined with the inservice training components will serve to significantly advance Kentucky's agenda of systems change initiatives to create an infrastructure to better support children with SED and their families.

### **Assessment of Project High Need: A Model Inservice Training and Service Delivery Program for Children with Serious Emotional Disturbance**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237D20011

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

#### **ABSTRACT**

**PURPOSE:** This project will assess the outcomes of Project High Need for meeting the academic, class deportment, and social needs of children identified as having serious emotional disorder (SED) and those at risk of developing such disorders.

**METHOD:** Elementary-aged children identified as having serious emotional disorders and those children at risk for school failure at six target schools will be studied. Repeated measurement outcomes will be made on the following outcome and implementation measures: (a) observations of children's academic, social, and class deportment; (b) observations of teachers' instructional interactions with children; (c) observations of the implementation of prescribed interventions; (d) children's report cards; (e) weekly pre/post-tests on academic subject content areas; (f) IEP progress reports; (g) achievement test scores for primary academic subject content areas; (h) frequency of suspensions, rule infractions, and detentions; (i) self-concept and class deportment measures; and (j) satisfaction of teachers, principals, parents, and children with outcomes and procedures. In addition, a common set of subject characteristic data will be collected to probe demographic and other variables that might predict the degree of change obtained through the treatment package.

**ANTICIPATED PRODUCTS:** The program will expand knowledge of effective strategies to increase positive child-family interaction and increase family-school partnerships in the education of children with serious emotional disturbances and those at risk. Reports and papers describing the project and its research findings will be delivered to regional and national resource centers and

clearinghouses. Two to four project-related manuscripts will be published in peer-reviewed journals and presented at professional conferences. At least two workshops per year will be presented at school districts outside the immediate region.

## **Operationalizing the System of Care: A Needs-Based Model of SED Services**

**PRINCIPAL INVESTIGATOR:**  
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GRANT NUMBER: H237B10028  
BEGINNING DATE: 10/01/91

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** A cooperative venture involving local education agencies, the state education agency, and the Institute for the Study of Developmental Disabilities, will draw upon knowledge in interagency cooperation, family involvement, effective intervention, and training to develop and implement a model program for students with emotional and behavioral disorders.

**METHOD:** The project will accomplish its goals through the activities of five Project Teams. Team I will analyze and synthesize the literature on organizations, agencies, and interagency models who deliver services to children with serious emotional disturbances (SED) and other types of disabilities, and their families. Team I will also interview individuals who have established and maintained interagency arrangements to ascertain what common elements are critical for success. Team II will review the literature on interventions with SED children to identify effective model programs, program components, strategies, program policies, and procedures. Team III will identify appropriate professional training objectives, approaches, and procedures; develop a curriculum and instructional materials; develop a training schedule and select appropriate faculty to implement the training curriculum. Team IV will conduct a state-wide needs analysis related to services for SED children in Indiana. Team V will combine the independent efforts of three school districts — Clark County, Indianapolis, and Elkhart County — to develop a working model of services for children with SED based on the results of the collective information.

**ANTICIPATED PRODUCTS:** Project outcomes will include a comprehensive working plan for the delivery of services to children with SED in Indiana. In addition, a set of at least five self-study modules will be developed for use by participating LEA's to develop local system change plans. Modules will focus on the areas of screening and assessment, interagency collaboration, effective practices, training, and policies.

## **Collaborative Responsibility Empowering School Teams (CREST)**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237D30069

BEGINNING DATE: 6/10/93

ENDING DATE: 6/30/96

### **ABSTRACT**

**PURPOSE:** This project will test the value of the CREST model as an effective school-based approach to training school and community staff to meet the needs of students with serious emotional disturbance (SED) and behavioral disorders.

**METHOD:** The CREST Project is a comprehensive 3-year program to support the school staff of 21 schools in developing and using knowledge and skills to respond to all students in a constant and predictable manner. The project will enhance and promote students' growth and well-being and allow students with serious emotional and behavioral problems to remain in their community schools. Major training components to support school staff in using community and school resources include: (1) developing and implementing school-wide discipline policies and procedures; (2) teaching and maintaining positive classroom behavior and social skills; (3) designing, implementing, and evaluating interventions for students with SEDs; (4) developing ongoing support systems for the school model to ensure refinement and maintenance as school ecology changes.

**ANTICIPATED PRODUCTS:** The project will use descriptive methods to document the development of each school's CREST program as they refine and maintain the model over time. These descriptions will then provide the basis for further research into the factors that help schools sustain the ability to meet the needs of students with a wide range of behavioral and emotional differences.

## **Community Advocacy Network: A Collaborative Program for Students with Emotional Disturbance**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237B20011

BEGINNING DATE: 10/01/92

ENDING DATE: 7/01/94

### **ABSTRACT**

**PURPOSE:** This project will create a community advocacy network to combine the resources and expertise of the Dallas Independent School District and the Dallas County Mental Health and Mental Retardation Center to improve upon services currently available to children with severe emotional disturbance (SED).

**METHOD:** In Phase I, the program will develop a system of identification of severe emotional disturbance in children that is accurate, culturally sensitive and will provide a more accurate estimate of the extent of the problem for long-range planning. An inventory of existing services for such students within a target area will be conducted. An interagency manual will outline the roles and responsibilities of existing agencies in serving these students and their families.

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in an integrated service plan. A needs analysis will be focused on students and their families in the targeted area. A system of case management will be designed for the development of service plans for these students and their families, to include a team made up of one mental health professional from each of the two participating agencies. In Phase II staff in the target area will be trained in the identification process. The system of case management will be implemented using the mental health team format. Through advocacy activities and case management, access to services identified in Phase I will be provided.

**ANTICIPATED PRODUCTS:** Outcomes of the project will include an improved system of identification, an interagency team model that combines the resources of two primary service providers, a community needs assessment, a manual for interagency collaboration, and improved services to students with SED and their families.

### **Comparing Experiential Inservice and On-site Consultation to Increase Inclusionary Practices for Students with SED**

GRANT NUMBER: H237D30045

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

#### **ABSTRACT**

**PURPOSE:** This project will compare two unique approaches to increasing the skills and applications of interventions for effective inclusion of students with serious emotional disturbance (SED) in regular education classrooms.

**METHOD:** In this 3-year study, personnel from 24 school districts will be trained through a combination of experiential inservice training and on-site consultative support provided by staff from an approved private school for children with SED. Participating school districts will be required to identify teams of three district personnel including a regular education teacher, special education teacher, and related services personnel. Districts will be randomly assigned to one of three conditions (Experiential Inservice/Immediate Consultation, Experiential Inservice/Delayed Consultation, and Wait-List Control Group.) Outcomes measures repeated on specific points of the study will include quantitative and qualitative measures of content and process.

**ANTICIPATED PRODUCTS:** Results of this project are expected to provide empirical examinations of training methods that may be possible for increased collaboration between other approved private schools and public school districts. Additionally, the project should provide careful analysis of the potential impact of such training methods on the knowledge, skills, and attitudes of school personnel working within regular education settings.



## **Analysis and Development of Teacher's Interactions with Children and Youth with Severe Behavior Disorders**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20138

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will: (1) investigate the effects of four general classroom management strategies on interactions between teachers and students with severe behavior disorders; (2) develop and evaluate training packages based on the strategies that lead to increased reciprocal and decreased coercive interactions; and (3) provide for evaluation of project goals and objectives and broad-based impact of project findings through dissemination activities.

**METHOD:** The methodology will include direct observation of teacher/student interactions in 25 classrooms for students with severe behavior disorders. From these observations, teachers with low rates of positive interactions will be invited to participate in five single subject studies. Independent variables for the single subject studies will include general classroom management strategies of classroom organization, classroom rules, teacher traffic patterns, and token reinforcement systems. In the fifth study, all of the strategies will be combined to form the intervention. An observation system will be implemented that allows for recording of teacher student/interaction in sequence and identification of positive and coercive interaction patterns. In addition, each study will include measurement on other dependent variables such as student disruptive behavior, teacher movement patterns, student positive behaviors, and others as needed to analyze the effects of the experiments.

**ANTICIPATED PRODUCTS:** Results will be used for an inservice workshop for teachers of students with severe behavior disorders. Each individual study will be submitted for publication, and project activities will be presented at professional meetings as data become available.

## **Adversive Stimuli Within Academic Interactions: Implications for Students with Severe Behavior Disorders and Their Teachers**

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GRANT NUMBER: H023C30071

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will identify potentially adverse stimuli that occur within the academic instructional process.

**METHOD:** Major program goals to be explored through a series of specific experiments include: (1) assessing the appropriateness of the level of academic materials used in classrooms for students with severe behavior disorders; (2)

identifying through direct observation and experimental verification escape- and avoidance-motivated behavior associated with academic materials; (3) identifying through direct observation and experimental verification escape- and avoidance-motivated behavior associated with teacher/student instructional interactions; and (4) identifying through direct observation teacher escape- and avoidance-motivated behavior.

**ANTICIPATED PRODUCTS:** Project findings will be disseminated through research reports, teacher guidelines, and conference presentations. Anticipated findings will both document current uses of negative reinforcement within the instructional process and examine the potential of negative reinforcement in therapeutic applications.

### **Commonwealth Institute Project (CIP): Improving Services for Children with Serious Emotional Disturbance and Their Families**

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GRANT NUMBER: H237E20032

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/95

#### **ABSTRACT**

**PURPOSE:** This project is designed to interface with existing state initiatives mandating the development of community-based alliances that promote collective responsibility and support for children with serious emotional disturbance (SED) and their families in Virginia.

**METHOD:** While the recent trend in service delivery has been to provide multidisciplinary services to children rather than families, this project focus will on provision of family-friendly services within the context of community-based, family-centered services. The project will request initial and continuing guidance from an advisory board consisting of members representing parents, schools, community service providers, inpatient child psychiatric hospitals, researchers, state-level administrators, and city officials. New baseline and outcomes measurements for evaluating family-friendly services will be developed and used to identify needed improvements in the current service delivery system. After a period of focus on strengthening interagency collaboration for the provision of community-based, family-centered services, a plan for implementing family-friendly services will be developed, implemented, and evaluated.

**ANTICIPATED PRODUCTS:** Two guidebooks will be developed, one for children with SED and one for their parents to assist with understanding the nature of emotional and behavioral problems of the children, services available, etc. A separate manual will be developed detailing the methods and procedures for establishing a service delivery system that is family-friendly in nature.

## **Teaming to Promote Psychosocial Development of Students with Serious Emotional Disturbance (SED)**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H237C20020

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project hopes to contribute to a restructuring of public education in Hawaii so that it proactively promotes the psychosocial development of all students, with particular attention paid to the individual needs of students with behavioral and emotional disturbance.

**METHOD:** The project is designed to combine two state-of-the art conceptual orientations -- outcomes-based education and local community control of schools -- in a teaming process to undertake school program improvement activities with guidance and support by project personnel. The project will be undertaken cooperatively with Oahu's Central School District, which is contributing the services of two half-time resource teachers as well as other support. Restructuring teams will be established at an elementary, an intermediate, and a high school, and a coordination team will serve to ensure smooth transitions for students with behavioral and emotional problems, including those with SED, between the school levels and from high school into post-school settings.

**ANTICIPATED PRODUCTS:** A wide range of products will be developed, including the mission statements and desired outcomes of each planning team, the proposed program revisions and action plans of each team, new/revised curricula, evaluation reports, a replication package, and journal articles and conference presentations. Evaluation and demonstration results will also be disseminated through journal articles, testimony at legislative hearings, and presentations at conferences dealing with relevant issues.

## **Multistage Assessment of Aggressive Behavior**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023N30025

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

### **ABSTRACT**

**PURPOSE:** This project will implement and evaluate a multistage, multivariate assessment protocol for identifying variables motivating aggressive behavior problems exhibited by students with serious emotional disturbance (SED).

**METHOD:** Key factors hypothesized as contributing to aggressive behavior will include: a social skills deficit, positively or negatively reinforcing consequences, deficits in the cognitive processing of social stimuli, and environmental deficits. The first project phase will implement the multistage, multivariate study involving 150 children with SED, incorporating screening measures and a comprehensive assessment of variables associated with aggressive behavior. In Phase 2, the program will develop appropriate interventions based on the assessment

information. These interventions should yield information on the validity of assessment procedures and shed light on the interaction between key hypotheses of the functional model. Four intervention studies using single-case methodology will be employed.

**ANTICIPATED PRODUCTS:** Project methodology and results will be described in papers for publication to research-oriented journals. Inservice workshops and consultation activities will be provided to promote dissemination to practitioners, as will a comprehensive report of project findings.

### **Family and Community Alliance Project (FACAP)**

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GRANTNUMBER: H237E20033  
BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will reduce the use of out-of-community residential programs by implementing in-district, community-based services for students with serious emotional disturbance (SED) in the Hartford Public Schools, Hartford, Connecticut.

**METHOD:** At the system level, two mechanisms for integrating a multiagency system of education and related services will be established -- the Interagency Management Team and the Case Review Committee. At the service delivery level, intensive case management teams, known as Family and Community Alliance Teams, will provide case management services and support for youth and their families. In addition to case management provided by the F/CAP teams, project clients will also have access to existing services of the Hartford Board of Education and the Department of Children and Youth Services, in addition to receiving priority access to mental health agencies funded by DCYS. A client discretionary or wrap-around fund will be established to assure that services or support needed by a family but not available through existing service resources are readily available.

**ANTICIPATED PRODUCTS:** Following evaluation of project outcomes, staff will develop and distribute reports on project strategies and results, conduct workshops and conference presentations, and write journal articles for publication in professional periodicals.

## **Transition to Adult Life for Secondary Age Students with Emotional Disturbance**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C00054

BEGINNING DATE: 9/01/90

ENDING DATE: 8/31/95

### **ABSTRACT**

**PURPOSE:** This project will evaluate the effectiveness of restrictive and nonrestrictive settings in preparing students with emotional disturbance for adult life.

**METHOD:** The project will add to the current knowledge base regarding the postschool adjustment of students with emotional disturbance who access secondary education programs in settings that vary on the integration to segregation continuum of service options. The project will identify relationships between student-centered and school experience variables and the level of postschool adjustment of students with emotional disturbance.

**ANTICIPATED PRODUCTS:** The research findings will be disseminated by offering recommendations for programmatic revision based on the results of the research, assisting in the institutionalization of the proposed student tracking model in the research settings, and developing and disseminating guidelines for implementation of the model in settings across the country.

## ***SECTION 8:***

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### ***SEVERE DISABILITIES***

## **Escalating Sequence of Problem Behaviors: Analysis and Intervention**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30098

BEGINNING DATE: 10/01/93

ENDING DATE: 3/31/95

### **ABSTRACT**

**PURPOSE:** This project will empirically document and disseminate a theoretical framework for supporting students with severe developmental disabilities and multiple problem behaviors that occur in an escalating sequence from low to high level intensity.

**METHOD:** The project will demonstrate that controlling variables can be identified and manipulated to eliminate behavioral escalations, and to understand the hierarchical organization of the escalating sequence. Data collection and analysis will occur within a single-subject reversal design involving four participants from the local school district who exhibit multiple problem behaviors that appear to occur in an escalating sequence. Data analysis will allow staff to: (1) document the escalating sequence of problem behaviors, (2) document a functional relationship between discriminative stimuli and problem behaviors, and (3) establish the role of response effort in the hierarchical organization of the escalating sequence.

**ANTICIPATED PRODUCTS:** This research has the potential for significant impact through implementation of behavioral assessment and programming strategies for supporting students with escalating sequences of problem behaviors through at least two direct outcomes: (1) advancement in the knowledge base of the organization and measurement of escalating response sequences, and (2) improvement in clinical practice for supporting persons with escalating response sequences utilizing positive support strategies.

## **Evaluation of Naturalistic Conversation Training for Improving Speech-Intelligibility in Students with Severe Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30052

BEGINNING DATE: 7/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will complete a pilot testing of the efficacy of integrating language and speech intelligibility training using naturalistic training procedures for students with severe disabilities in full inclusion settings.

**METHOD:** A standard multiple baseline study design using 10 separate single subjects with reversals and direct replication across behaviors and subjects will be employed. Disability typology and speech intelligibility targets for each subject will be directly replicated. Independent variables will include baseline and conversation training conditions. Dependent measures will include the percentage of correct productions for the targeted speech sounds and level



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of intelligibility in spontaneous language production. These dependent measures will be sampled at regular intervals during the baseline and training phases of the program. Additionally, dependent measures for language, social skills and disruptive behavior will be systematically assessed throughout the study.

**ANTICIPATED PRODUCTS:** Results of this project should be easy to incorporate into other training programs including Incidental Learning, Milieu Training, and Natural Language Paradigm training. Dissemination, conference presentations, and inservice activities will be provided to result in the rapid transfer of information from the project to the schools, universities, and research sites serving students with severe disabilities nation-wide.

### **Improving Language Learning Disabilities Using Naturalistic Teaching Procedures**

GRANT NUMBER: H023C30070

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

#### **ABSTRACT**

**PURPOSE:** This study will experimentally test the efficacy of integrating language and speech intelligibility training using naturalistic procedures for students with severe disabilities in full inclusion settings.

**METHOD:** In the first project year, staff will carefully evaluate efficacy of targeting improved sound production during naturalistic language teaching and directly compare results to baseline levels of training implemented using traditional pull-out, analogue procedures with settings held constant across training procedures. In years 2 and 3, the naturalistic conversation training will be provided as an integral part of the regular language curriculum. Comparisons on social validation assessments of children's language and social gains will be obtained in integrated school, community, and home settings in order to determine whether naturalistic and analogue drill-based procedures differ with regard to generalization of targeted structures to various social contexts and with regard to any differences in impact on social skills and disruptive behavior.

**ANTICIPATED PRODUCTS:** These studies will be directly replicated in the Nashville Metropolitan School District in Tennessee and the Santa Barbara County Schools in California. Teaching improved speech intelligibility using naturalistic conversation training is expected to prove highly effective in training generalized speech production skills; in turn, this will lead to rapid and generalized improvements in language and social skills as well as reductions in disruptive behavior among students with severe disabilities. The naturalistic procedures explored are also expected to prove significantly more cost-effective than existing pull-out models.

## **Expanding Behavioral Momentum: Linking High-Probability Requests and Peer Interactions to Promote Skill Acquisition and Generalization in Young Children with Severe Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30089

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/98

### **ABSTRACT**

**PURPOSE:** This project will expand previous work in behavioral momentum by embedding the high-probability request sequence into peer social interactions, then using these sequences to promote social, motor, communication, and self-help skills.

**METHOD:** Participants in the research will be young children with severe disabilities. Across the various studies proposed here, the children will be identified as: (1) socially withdrawn or isolate, (2) experiencing substantial motor impairments that limit their abilities to reach, grasp, manipulate objects, maintain head control, or move through space, and (3) lacking in expressive communication systems, and/or lacking functional and important self-help skills. Observational research methods combined with a series of multiple baseline designs will be used to examine and evaluate the effects of the momentum interventions. Outcomes measured across the series of studies will include each participant's performance of high and low probability requests including: (a) social interactions; (b) motor actions; (c) communication responses; and (d) self-help skills.

**ANTICIPATED PRODUCTS:** Results of individual studies will be used to develop an empirically-based, socially validated curriculum that can be used by professionals and parents to teach children with severe disabilities across settings and developmental domains. Dissemination activities planned include manuscripts describing research results for publication in professional journals, conference presentations, employment of the Educational Resource Information Center (ERIC), and a training manual to facilitate replication.

## **Self-Managed Exercise and Stereotypy Project**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023N30001

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will study both the relationship between exercise and aberrant behavior and the methods by which persons with severe disabilities can self-manage exercise routines.

**METHOD:** Across 3 years, approximately 20 students, ranging from 10- to 21-years old and receiving services as severely mentally retarded or autistic, will attend exercise sessions, four to five times weekly as part of their school program. Modes of exercise will include electronic treadmills, exercycles, and walking. Measures will be maintained on amount and types of exercise, level of independence on various components of exercise routines, heart rate during

exercise, resting heart rate, frequency and duration of aberrant activity, and proportion of time in behavior states. Participants will also receive formal cardiovascular assessments and a field-based treadmill test twice yearly. Analyses of daily behavioral measures and pre-post fitness measures will be compared.

**ANTICIPATED PRODUCTS:** This project has the potential to contribute to broad areas of interest, including: theoretical and applied study of aberrant behavior; implementation of self-managed fitness routines for persons with severe disabilities; the development of reliable cardiovascular fitness assessments, and the long term effects of exercise and increased fitness on behavior and behavior states. Project findings, strategies and methodology will be disseminated via papers for publication, presentations at national conferences and workshops and other inservice training opportunities.

### **The Promise of Adulthood for Individuals with Severe Cognitive Disabilities: A Qualitative Research Project to Improve Transition Planning and Support**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023N20026  
BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

#### **ABSTRACT**

**PURPOSE:** This 3-year project has as its primary objective the refinement of our understanding of how to interpret the meaning of adulthood in the lives of individuals with the most severe cognitive disabilities.

**METHOD:** The project will conduct three distinct strands of inquiry. Strand 1 will be largely descriptive in nature and will focus on the generation of a set of "grounded theories" about the cultural interpretation of adulthood in the lives of individuals with severe and profound cognitive disabilities. This study will rely on open-ended interviews, participant observation, and a small number of in-depth case studies for data collection. Using focus group discussion and "action research" techniques, Strand 2 will move from description to application by exploring whether and how the deepened understanding and interpretation emerging from Strand 1 can be used by teachers and families to prepare and support adolescents with severe and profound disabilities to achieve more fully the cultural promise of adulthood. Finally, Strand 3 will reflectively examine the methodological issues raised within the previous strands as they apply to the larger possibilities of producing qualitative/interpretivist research that is both conceptually rich and educationally useful for people with severe cognitive disabilities. This final strand will use the techniques of reflective journals and qualitative evaluation.

**ANTICIPATED PRODUCTS:** A socially validated, teacher/parent-designed strategies module will be developed to incorporate the project's expanded understanding of the dimensions of adulthood in an applied approach to transition planning and family support for life after school. Separate research reports will be generated for each strand, and reworked versions of these basic reports will be prepared for family and practitioner publications. Results will be presented to local and state family and consumer groups, as well as local, state, and national professional conferences.

## **Predictability and Choice as Elements of Effective Behavior Support**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A30093

BEGINNING DATE: 10/01/93

ENDING DATE: 3/31/95

### **ABSTRACT**

**PURPOSE:** This project will improve the instructional options available to teachers and families of students who perform problem behaviors, focusing on a systematic analysis of the roles "choice" and "predictability" play in complex behavioral support plans.

**METHOD:** A concept paper will be developed to define the relationship between curricular interventions of choice and predictability and severe problem behavior. Experimental analysis will examine the independent and combined relationship between predictability and choice of severe problem behavior. Three school-aged children with severe disabilities will be selected as subjects for having displayed behaviors including self-injury, aggression, and/or property destruction. Problem behaviors will be videotaped during 15-minute sessions; frequency and duration of behaviors will be recorded by trained observers using laptop computers. Results will be graphed and visually analyzed using criteria for a reversal design. Separate phases will integrate choice and predictability factors into IEP activities determined to be associated with escape-motivated behavior. Teacher rates of prompt and praise will also be measured as contributing factors.

**ANTICIPATED PRODUCTS:** Major outcomes will include: a concept paper discussing the theoretical framework of choice and predictability; a research study on the effectiveness of the independent and combined effects of choice and predictability on severe problem behavior; and a teacher guide depicting and emphasizing the adaptability of choice making in instructional settings.

### **Transition from School-to-Work Support Services Model**

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GRANT NUMBER: H023N10017

BEGINNING DATE: 1/01/92

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will develop and evaluate the effectiveness of a support services model for the transition from school to work for students with severe disabilities.

**METHOD:** Literature reviews, field testing, and other strategies will be used to finalize a support services model consisting of three complementary components: extending individual competence, developing natural supports in the workplace, and promoting social acceptance. Instruments will be developed to assess the degree of implementation of the model and to determine the effectiveness of the model in relation to student outcomes such as length of employment, wages earned, and level of independence. The model will be

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implemented by project staff in one local education agency with eight secondary age students with severe disabilities. Subsequently, a training module will be developed for vocational teachers, and two teachers will replicate the model with a total of 16 students at two sites. Both single-subject and traditional comparative group experimental designs will be used to evaluate the degree of implementation and its effectiveness in achieving student outcomes.

**ANTICIPATED PRODUCTS:** The project will develop a training module comprising implementation guides, an inservice program, and technical assistance follow-along services for national dissemination to vocational teachers and transition specialists. Other products will include journal articles, clearinghouse reports, presentations, and technical assistance to service providers.

### **A Longitudinal Study of Generalization and Maintenance in Integration Settings for Students with Autism**

GRANT NUMBER: H023C30055

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/98

#### **ABSTRACT**

**PURPOSE:** This project will continue previous investigations of procedures for mainstreaming and integration of children with autism.

**METHOD:** Project objectives include: (1) longitudinal ecobehavioral analysis of existing integration programs for students with autism including identification of successful components and/or weaknesses; (2) building upon these findings to carefully plan generalization studies to increase integration time and success; (3) replication studies for effective generalization strategies with follow-up; (4) pilot studies in middle schools including environmental assessments, integration, and generalization studies. These goals have been designed to: extend current integration technology; to expand the knowledge base to include generalization procedures; to investigate self-monitoring and continue documentation of peer-involved activities in integrated environments; to provide middle school demonstrations; to monitor program effects in the areas of academic, social, and behavioral competence for students with autism and their peers and disseminate findings to improve the quality of life for all students.

**ANTICIPATED PRODUCTS:** These studies and databases will provide a much needed evaluation of current and progressively improving integration technology. Continuation of current research objectives is required to define a model, determine variables congruent with successful implementation, provide additional strategies to the knowledge base, address the issue of generalization of procedures, determine long-term effects and outcomes, and explore dissemination and training methods that ensure future adoption.

## **Exemplary Practices to Develop the Communicative Competence of Students Who Use Augmentative and Alternative Communication**

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GRANT NUMBER: H023N20010

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/95

### **ABSTRACT**

**PURPOSE:** This study will conduct investigations to identify skills that contribute to the communicative competence of students using augmentative and alternative communication (AAC) systems.

**METHOD:** Five studies will be conducted to investigate effects of specific student skills on naive and experienced observers' perceptions of the communicative competence of the AAC user. The efficacy of instructional techniques to promote the development of communicative competence will be investigated through three studies employing single subject experimental designs. Three instructional modules will then be developed that describe exemplary practices in promoting communicative competence among AAC users.

**ANTICIPATED PRODUCTS:** The project will initiate a line of research by establishing appropriate methodologies, developing valid and reliable measurement tools, and solidifying collaboration among consumers, families, educators, service providers, and researchers. Dissemination of findings will be conducted through notices of the availability of the instructional modules, direct mailings to practitioners, and direct mailing to programs involved in preservice training of professionals.

## **The Inclusive Education Project**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C20212

BEGINNING DATE: 8/01/92

ENDING DATE: 7/31/96

### **ABSTRACT**

**PURPOSE:** This project will conduct a longitudinal investigation of processes and outcomes in regular education classrooms where students with moderate and severe disabilities are enrolled full time.

**METHOD:** The project will begin with an open-ended qualitative study focused on 12 students with moderate or severe disabilities during the first year; the study intends to clarify and refine hypotheses regarding key study questions and objectives. Year 2 will focus on the development of quantitative measures of classroom processes and student outcomes that are sensitive to variance in the parameters described through the initial qualitative study, and the number of participants will expand to 24. Years 3 and 4 will entail ongoing follow-along of students participating in the project, as well as intervention research aimed at increasing implementation of practices in regular classroom environments that have been identified as contributing to positive outcomes.



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**ANTICIPATED PRODUCTS:** This project will provide data to demonstrate outcomes for students with disabilities and students without disabilities participating in full inclusion programs. Program and teacher characteristics associated with specific outcomes will be identified. Interventions aimed at modifying aspects of classroom environments hypothesized to affect outcomes will be developed, and a variety of quantitative measurement strategies with high social validity will also be developed.

**Coercive Ecologies: An Analysis of Interactions  
Between Staff and Students with Severe Disabilities**

GRANT NUMBER: H023B30046

BEGINNING DATE: 10/10/93

ENDING DATE: 3/31/95

**ABSTRACT**

**PURPOSE:** This project will analyze the potentially coercive relationship between students having developmental disabilities and severe problem behaviors and support staff in residential and school contexts.

**METHOD:** Specific project objectives are to: (1) prepare a concept paper defining the theoretical logic connecting coercive ecologies and severe problem behavior; (2) conduct a descriptive analysis of the extent to which Patterson's model of coercive behavior applies to the severe problem behaviors of students with severe disabilities and their support staff; (3) disseminate project findings; and (4) manage and evaluate ongoing project activities. Six students with developmental disabilities and severe behavior problems and six support staff will participate in the study. Following individualized assessment, short observation sessions across relevant settings will be conducted to verify the occurrence of escape and avoidance behavior when students are presented with tasks that imply either high or low probabilities of such behavior. Problem behaviors in natural settings will also be analyzed and taken into account in functional analyses of behavior data.

**ANTICIPATED PRODUCTS:** Findings from this project are expected to provide theoretical support for the application of Patterson's model of coercive behavior to the interactions of students with severe disabilities. Practical implications of these results will extend to (a) procedures for completing functional assessments of problem behaviors; (b) design of educational, work, and residential support settings; (c) development of behavior support programs; and (d) policies guiding behavioral support for individuals with severe disabilities and severe problem behavior.



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## **Demonstrating the Benefits of Tangible Symbol Systems**

GRANT NUMBER: H180L30056  
BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will conduct a comprehensive evaluation of the benefits of using tangible symbol systems beyond what has been possible in the past.

**METHOD:** Approximately 60 children and youths aged 3-21 with severe and/or multiple disabilities who are not able to communicate using a symbolic system will be involved from three school systems in Oregon. Three separate studies will be conducted to implement and evaluate the tangible symbol system to be used including: a study to document the efficacy of tangible symbol systems as a means of symbolic communication for students who have no means of communicating other than gestures; a longitudinal study to explore the long-term potential for tangible symbol systems as a possible stepping stone to the use of more conventional communication systems (including technological devices); and a study to evaluate the effectiveness of new materials developed through this project.

**ANTICIPATED PRODUCTS:** Products will include videotaped case studies for use as training aids, revised training materials, and presentations of project results at national conferences.

## **Effectiveness of Teachers Strategies for Learning and Using Blissymbols by Students with Mental Retardation**

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GRANT NUMBER: H023B30026  
BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This research will compare the effectiveness of three teaching strategies for learning and the use of Blissymbols (a graphic augmentative and alternative communication system) by students with moderate to severe mental retardation.

**METHOD:** Three groups of subjects will be assigned to one of three instruction strategies, including: (1) a classic paired associate learning paradigm without provisions of further context; (2) a paired-associate learning paradigm within a story-telling context; and (3) symbol explanations in a story-telling context. All subjects will have been diagnosed as having no prior exposure to Blissymbols, receptive vocabulary skills between 3 and 5 years of age, and little or no functional speech. Repeated measures analyses of variance will be used to compare the three groups on: (a) the number of Blissymbols learned and retained; (b) the generalization of symbol learning to novel compound symbols; and (c) the number of symbols used correctly in an expressive communication task.

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**ANTICIPATED PRODUCTS:** Results of this research will have the potential to either validate or necessitate revisions of current instructional methods and materials for teaching students with mental retardation to use aided graphic alternative and augmentative communication systems. Findings will also have direct bearing on understanding the theoretical construct "stimulus overselectivity."

**The Effects of American Sign Language (ASL) Fluency  
Upon the Development of Linguistic, Social, and  
Cognitive Competence in Deaf Children**

GRANT NUMBER: H023T30007

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/96

**ABSTRACT**

**PURPOSE:** Through three separate studies, this project will compare the effectiveness of using American Sign Language (ASL) versus Simultaneous Communication (SC) as the language of instruction in educational settings for profoundly deaf children in early, middle, and late childhood.

**METHOD:** The first study will compare ASL-exposed groups to groups of deaf children in programs using SC, in order to compare the effectiveness of ASL and SC as the language of the classroom upon a child's linguistic, social, and cognitive competence. The second study will focus on older students, using a combined case study/experimental approach to examine the effectiveness of using a Cooperative Language Program that teaches secondary school-aged deaf students with limited English proficiency to use first language (ASL) metalinguistic skills to develop second language (English) skills. The third study will address the issue of how young deaf children from non-ASL using and hearing families will learn ASL. The effectiveness of a preschool classroom-based ASL Early Intervention program will be compared with a home-based ASL Early Intervention program. This last study will be experimental, but will also involve some case study analyses.

**ANTICIPATED PRODUCTS:** The project will submit articles and other information about this research to appropriate professional outlets for publication including journals, professional and consumer newsletters, and book chapters. Outcomes will be presented to at least one local/regional audience and one national audience per year. Each collaborating program and collaborating teacher will be presented with a summary of research findings. Parents of participants will be provided with a brief summary of research findings as well.

## **Achieving Supported Employment for Students Severely Handicapped by Developmental Disabilities and Challenging Behavior Before and After Graduation**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C10149

BEGINNING DATE: 7/01/91

ENDING DATE: 6/30/94

### **ABSTRACT**

**PURPOSE:** The project will investigate the relationship of challenging behavior to a number of employment variables, and will develop a reference manual describing over 150 supported employment jobs and the necessary supports and adaptations, which were held by people who have severe developmental disabilities and associated behavior problems.

**METHOD:** The participants in this project are 50 adults and 6 students who are severely disabled by autism, who have IQ's ranging from severely mentally retarded through high average, and who have held jobs in the community under the supervision of Community Services for Autistic Adults and Children (CSAAC). Focus on these participants will include: examination of the nature and incidence of challenging behaviors (such as aggression and self-injury); examination of the implementation of nonaversive behavior management strategies provided to control destructive behaviors; evaluation of the effects of these strategies on the targeted behaviors; and examination of the relationships between incidence and severity of challenging behaviors and various aspects of employment and vocational development, including length of time employed, number of jobs held, wages, raises, and types of jobs. Additionally, this project will survey 10 years of supported employment of people with severe autism and behavior problems, and develop a reference manual describing over 150 jobs held, the characteristics of the individuals who held the jobs, and the adaptations and behavior management supports provided. Methods for developing IEP goals based on specific job descriptions will be provided as well as sample transition, vocational IEP goals, and specific goals related to social and behavioral development.

**ANTICIPATED PRODUCTS:** The primary product will be the reference manual on supported employment. Additional dissemination efforts will include presentations at state and national conferences, publications in professional journals, and the use of the on-site training system at CSAAC.

## Multivariable Analysis of Severe Problem Behavior

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023N10010

BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** The project will develop and field-test a comprehensive model for assessing and treating high intensity problem behaviors by students with severe disabilities.

**METHOD:** A concept paper that defines the theoretical and clinical basis for treating high intensity problem behavior will be developed. A comprehensive data collection system for analyzing sequential/ecobehavioral relationships across a variety of classroom and community settings will be developed and field-tested with students with severe disabilities who attend public schools. In the final study, three students will be involved in a comparative analysis of punishment and functional equivalence training on behavioral response class. The studies will employ a computer-assisted direct observation system and clinical tracking of specific setting events hypothesized to affect the behaviors of concern. Data will be analyzed via single subject methodology, calculation of lag sequential conditional probabilities, analysis of response effort and intensity, and social validity of the data summaries.

**ANTICIPATED PRODUCTS:** Project outcomes will include an increased knowledge base; a measurement system to monitor and evaluate intervention progress; an intervention model; and teacher/staff training modules for use by technical assistance personnel, teacher trainers, researchers, and clinicians. Products will include newsletter and journal articles, conference presentations, and training manuals.

## Work and Integration in Supported Employment

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GRANT NUMBER: H023N20031

BEGINNING DATE: 9/01/91

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This project will develop a strategy for increasing social integration between employees who are disabled and those who are nondisabled in supported employment settings.

**METHOD:** Three studies will be conducted with 10 adults with severe disabilities who have severe mental retardation, poor social interaction skills, and communication disorders. These adults will be placed in supported employment situations at a hospital or other local business. Study 1 will evaluate whether a treatment package consisting of conversational skills training, social language skills training, and question-asking during conversation will result in an immediate and generalized increase in social interactions with co-workers. Study 2 will evaluate the effectiveness of communication skills training with five different

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subjects. Study 3 will determine the effectiveness of teaching nondisabled co-workers how to instruct employees with disabilities. The majority of the research will utilize single subject methodology; in addition, questions concerning the effectiveness of different measurement systems (clique analysis, global measures, and social validation) will be answered.

**ANTICIPATED PRODUCTS:** Products will include journal articles, conference presentations, and review papers targeted for speech language consultants and other practitioners.

**Enhancing Communication Skills of Young Children  
with Severe Disabilities Through Partner Programming**

GRANT NUMBER: H023C00126

BEGINNING DATE: 9/01/90

ENDING DATE: 8/31/95

**ABSTRACT**

**PURPOSE:** This project will examine the immediate and long-term effects of early communication and language intervention procedures that are provided to interactive partners of young children with severe or multiple disabilities.

**METHOD:** The project will address issues including: the use and effectiveness of the procedures for children with varying baseline communication abilities; the use and effectiveness of the procedures across multiple integrated preschool educational programs; and generalization and long-term gains and/or maintenance of the interactive behavior of partners who receive training.

**ANTICIPATED PRODUCTS:** The project will result in development and national dissemination of a series of manuals, publication of articles, and provision of professional training workshops. These products will facilitate the translation of project findings into practice.

***SECTION 9:***

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***TEACHER TRAINING,  
RETENTION,  
AND  
SUPPLY AND DEMAND***

## The Oregon NTE Study

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GRANT NUMBER: H159A30002

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### ABSTRACT

**PURPOSE:** This project will assess the impact and effectiveness of programs, policies, and procedures assisted under the Individuals with Disabilities Education Act (IDEA), in particular focusing on alternative teacher certification procedures.

**METHOD:** The project builds on the foundation laid by a previous feasibility project. Analysis of previous data will focus on the potential use of NTE scores in certifying students for special education endorsements in addition to regular education certificates. A three-pronged approach of quantitative research methods, qualitative research methods, and an active advisory design group will be employed to preserve the integrity of each approach and provide multiple perspectives on alternative certification. The quantitative approach will explore relationships between teacher characteristics and performance while the qualitative case studies will contribute texture, depth, and theory development to the quantitative findings. The advisory design group will assist in maintaining a pragmatic focus to the research activity, formulating interpretations and implications of findings, and directing conclusions and recommendations toward an informed and comprehensive personnel development plan for Oregon.

**ANTICIPATED PRODUCTS:** Findings from this study may open the door for an inexpensive and reliable new approach for school districts to fill vacancies in special education systems. The shortage of qualified and certified special education staff could be considerably ameliorated by such an approach if it is found to be effective and valid.

## Research Into the Retention and Attrition of Special Education Teachers

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GRANT NUMBER: H023Q10011

BEGINNING DATE: 1/01/92

ENDING DATE: 12/31/94

### ABSTRACT

**PURPOSE:** Research will be conducted to describe the broad range of forces including factors related to personnel preparation that contribute to the attrition rate of special education teachers in urban schools. The research findings will be integrated into a strategic plan designed to increase retention and reduce attrition in the districts.

**METHOD:** Surveys will be conducted of special education teachers in two multiethnic school districts: San Diego Unified School District and San Jose Unified School District. A literature review and telephone interviews with teachers who have left, are leaving, and those remaining, will be used to identify influencing variables such as school demographics, credential requirements, teacher preparation, and type of teaching assignment. A variety of statistical



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procedures will be employed including descriptive analyses, survival analysis, and analysis of continuous data. A critical incident study will ask teachers to recall events critical to their decisions to remain in or leave the field. A study involving four campuses will focus on variables relating to preservice students.

**ANTICIPATED PRODUCTS:** Anticipated outcomes include a detailed and comprehensive analysis of the attrition and retention factors in the two districts and a strategic plan designed to increase retention.

**Effects of an Instructional Efficacy Intervention on the Perceived and Actual Instructional Efficacy of Teachers and Reading Achievement of Students with Learning Disabilities and At Risk for Reading Failure**

GRANT NUMBER: H023B30035

BEGINNING DATE: 9/01/93

ENDING DATE: 2/28/95

**ABSTRACT**

**PURPOSE:** This research will threefold: (1) explore the relationship among teachers' sense of teacher efficacy, years of teaching experience, and critical pedagogical stages; (2) examine the effectiveness of a staff development program for enhancing teacher efficacy; and (3) explore the relationship between teacher efficacy and student performance. Reading instruction will be the focus subject of the investigation and associated teacher training.

**METHOD:** Study 1 will be a descriptive investigation involving 100 teachers. This study will utilize a multiple regression analysis to examine the relationship among the predictor variables of teaching experiences, number of low performers, class size, critical pedagogical stage, and the dependent variable of instructional efficacy. Study 2 will employ participants of Study 1 in a stratified random-sampling pretest/posttest control group design. Participants will participate in a three-phase, 12-week instructional efficacy intervention, and improvements in their performance and efficacy will be rated by peers. These results will be examined alongside performances by students with learning disabilities and students at risk for reading failure.

**ANTICIPATED PRODUCTS:** Findings from Study 1 will assist in building an empirical database regarding the relationship between teacher efficacy and critical pedagogical stages in reading. Successfully enhancing instructional efficacy in Study 2 will offer teachers new techniques for analyzing and adapting their instruction to be responsive to the needs of low-performing students.

## **Developing and Evaluating Interventions Aimed at Increasing Retention of Special Education Teachers**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023N10011

BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This 3-year project will examine the combined and differential effects of two interventions designed to reduce the likelihood of special education teacher attrition by alleviating burnout and enhancing job satisfaction.

**METHOD:** Special education teachers and related service personnel serving in teaching roles (e.g. itinerant specialists) from the Eugene-Springfield area in Illinois will participate in two interventions: (1) a series of stress management workshops aimed at preventing or alleviating teacher burnout, and (2) a peer collaboration program designed to facilitate supportive collegial interactions among pairs of teachers regarding work-related problems. The interventions will be developed, implemented, and evaluated locally in the first 15 months, and replicated in the second 15 months at another site (45-60 participants per site). A modified cross-over design will be employed to assess the interventions' combined effects, differential effects, and order effects. Follow-up measures will be administered to the treatment groups to ascertain the extent to which treatment effects are maintained over time. Dependent measures will include degree of burnout experienced, job satisfaction, and organizational commitment. Demographic and social validation measures will be employed, and multivariate analysis of covariance will be conducted. Turnover rates for treatment groups will be compared with school districts' overall turnover rates.

**ANTICIPATED PRODUCTS:** Dissemination activities will include regional and national conference presentations, journal articles, and contributions to education databases.

## **Attrition/Retention of Urban Special Education -- Teachers Multifaceted Research and Strategic Action Planning**

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GRANT NUMBER: H023Q10006

BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** Studies will be conducted to describe and understand the broad range of factors that contribute to the attrition of special education teachers in urban schools and to develop a strategic action plan for implementation by school districts to enhance teacher retention.

**METHOD:** Surveys will be conducted of special education teachers in four school districts: El Paso, Milwaukee, Portland, and Tucson. A conceptual framework will be articulated to encompass the many constructs and variables that help to describe and may influence teacher retention and attrition, including

entry path, dimensions of the special education assignment, and working conditions. Demographic, organizational, professional, and personal characteristics will be considered. Project phases will include a first-year survey of all special education teachers in the districts, a second-phase of telephone interviews with teachers who leave for work-related reasons, site visits to interview staff and administrators in the districts, and development of strategic action plans for use by the districts to improve teacher retention. A National Advisory Panel of teachers, administrators, teacher educators, SEA representatives, and others will assist in the refinement of the conceptual framework, interpretation of findings, development of the strategic plan, and dissemination.

**ANTICIPATED PRODUCTS:** Anticipated products include a set of training tools, guidelines, case studies, and planning formats that can enable other school districts to implement the innovation and adapt it to their own needs.

### **A Four-Pronged Middle School Intervention for Students with Mild Disabilities: Focus on Professional Development**

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GRANT NUMBER: H023C20111

BEGINNING DATE: 7/01/92

ENDING DATE: 6/30/95

#### **ABSTRACT**

**PURPOSE:** This project will develop, implement, and evaluate a comprehensive, four-pronged intervention at the middle school level to improve the quality of education received by students with mild disabilities and those at risk for special education referral.

**METHOD:** A comprehensive professional development model will be implemented to assist classroom teachers with skills and procedures for working with students with disabilities and at-risk students in their classrooms. Individualized coaching will be provided in research-based strategies, with an emphasis on generic effective instruction strategies, cognitive strategies, and cooperative/collaborative learning. Teacher-peer collaboration teams will provide an open forum for teachers to consult and develop instructional remedies among themselves. Class-wide student-peer tutoring will be provided to increase active involvement of students with disabilities in learning and social activities. Intensive remedial instruction will also be provided in literacy and numeracy.

**ANTICIPATED PRODUCTS:** Three manuals for professional development activities will be developed: a presenters' guide for training teachers and support staff, a guide for establishing and implementing class-wide peer tutoring at the middle school level, and a guide discussing effective cooperative learning strategies. Successful behavior control strategies developed by teacher-peer collaboration teams will be compiled in a separate report. Manuals and findings will be widely disseminated, and articles and reports will be submitted to professional journals.

## **Examining High School Curricula and the Demands on Personnel Educating Students with Disabilities: Mapping Curricular Options and Service Delivery Models in Washington and Utah**

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GRANT NUMBER: H023U10001

BEGINNING DATE: 11/01/91

ENDING DATE: 10/31/94

### **ABSTRACT**

**PURPOSE:** The project's four goals are to: (1) map the curricula and service delivery models for students with disabilities in high schools in Washington State and Utah; (2) analyze current teacher certification standards in the two states; (3) analyze current teacher preparation programs in the two states; and (4) to offer recommendations for school reform in curricula, service delivery, teacher certification, and teacher preparation.

**METHOD:** In order to achieve the four project goals, investigators will conduct the following activities: (1) refine conceptual frameworks based on Goodlad's "Study of Schooling" and the DeStefano and Wagner outcome-based model for mapping curricula and service delivery models; (2) survey all Washington and Utah districts that offer secondary high school programs, based on a matrix of curriculum content and service delivery derived from the conceptual framework; (3) conduct qualitative, in-depth case studies of a selected group of approximately eight schools with representative programs, using the Qualitative Case Study methodology; (4) determine student outcomes in the various curriculum models; (5) determine teacher and administrator skills needed to implement the models; (6) study teacher certification standards in Washington and Utah to compare these with actual demands on teachers and administrators identified in the study; (7) analyze teacher preparation programs in the two states in terms of actual demands placed on teachers; (8) make recommendations, via position papers, to seven national organizations with responsibility for teacher preparation and certification; and (9) disseminate information from the project.

**ANTICIPATED PRODUCTS:** Dissemination activities and outcomes will include presentations at national meetings of professional organizations, collections of technical papers, articles in special education and regular education journals, and a book on the entire project.

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## Improving the Retention of Special Education Teachers

GRANT NUMBER: H023Q10001  
BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/94

### ABSTRACT

**PURPOSE:** This research will: (1) describe and understand the broad range of forces that are contributing to the attrition rate of special education teachers in the Memphis City School District (MCSD), and in urban schools in general, and (2) assist the MCSD in using the research findings to develop a 5-year strategic action plan to enhance the retention of qualified special education teachers.

**METHOD:** A screening study will be conducted to determine job satisfaction and career plans of the current special education workforce. Participants surveyed in the screening study will then be interviewed in an "influencing factors" study to understand the influences of career plans, commitment, and job satisfaction in four distinct groups of special educators, and to identify questions and response foils for other instruments used in the study. An exit study will survey special and regular education teachers who have left their classroom positions to obtain information about their background and training, reasons for leaving, and current positions. A comprehensive commitment and retention study will survey regular and special education teachers on subjects such as licenses/certification, career entry patterns, and future career plans. Results of these studies will be used to assist the MCSD in developing a 5-year strategic plan to improve special education teacher retention.

**ANTICIPATED PRODUCTS:** Research findings and their implications for practice will be disseminated through journal and newsletter articles, reports to education clearinghouses, presentations at professional meetings, and final reports.

## Investigation of Special Education Teacher Attrition in Florida

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GRANT NUMBER: H023C20092  
BEGINNING DATE: 1/01/92

ENDING DATE: 9/30/95

### ABSTRACT

**PURPOSE:** This project's research activities will address how historical influences, individual teacher characteristics, structures of the educational environment, and influences external to the workplace contribute to the problem of staff attrition in special education.

**METHOD:** A survey packet will be developed to measure the variables contributing to teacher attrition among Florida special education teachers. Attrition rates will be established using a recently implemented state database, allowing for a comparison of regular and special education attrition rates at school- and district-levels. Data analysis of survey results will be used to profile schools and districts with notably high or low attrition. Teachers identified in the first year will be tracked through the state database, and those who leave will be interviewed regarding their reasons for

doing so. Four schools will be selected as case studies representative of both high and low attrition schools in both high and low attrition districts. An administrator survey will be developed and implemented to probe the relationship of administrators' perceptions of school environments to school- and district-level rates of attrition.

**ANTICIPATED PRODUCTS:** Measurement instruments will be developed for use by district and state-level administrators to continually monitor the impact of their programs and policies on teacher attrition/retention. By aggregating data at individual, state, and district levels, variables impacting attrition at each level will be identified. From these findings, retention strategies can be developed that are based on systematic research, discouraging the use of stop-gap approaches.

### **Examining the Impact of the Consultation Process: Extending the Knowledge Base**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023A20042

BEGINNING DATE: 9/01/92

ENDING DATE: 8/31/94

### **ABSTRACT**

**PURPOSE:** This project will investigate key elements of consultation through a pretest/posttest comparison control group design. Major project objectives include: generation of a substantial database on a consultation model of assisting teachers to facilitate identification of variables related to successful outcomes; comparison of methods of enhancing consultees' performance during consultation to determine their respective efficacy; examination of consultees' skill development and performance along a number of dimensions to ascertain its occurrence and generalization; and investigation of the child-related outcomes of a consultation model of assisting teachers.

**METHOD:** Twenty special educators from a local education agency (LEA) will be trained to provide consultation services to 80 regular educators, with 20 additional regular educators serving as a control group. The regular education teachers will participate in one of 5 conditions: (1) consultation; (2) consultation and training in behavior management strategies; (3) consultation and training in problem-solving techniques; (4) consultation and training in both behavior management and problem-solving; and (5) an attention control group. Analyses of participants' verbal interactions and performance, collection of attitudinal data, and direct observations of classroom behavior will be undertaken. Comparisons will be made of consultees' problem-solving skills (problem resolution is likely to occur if problem clarification is successful); and consultees' attributions for the cause of student-related problems will be assessed, as the consultation model proposes to broaden causal ascriptions for problems thereby improving problem-solving skills. Direct observations of classroom behavioral changes resulting from these interactions will be examined, and consultee satisfaction and organizational climate will be assessed.

**ANTICIPATED PRODUCTS:** Because a variety of educational practices are based upon consultation and interpersonal collaboration, this project is expected to have a substantial impact on the manner in which regular educators practice and upon the performance of special educators and other support staff.

## ***SECTION 10:***

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# ***TECHNOLOGY AND SOFTWARE***



## **Project SUCCESS: Students Using Cognitively-Based Computer-Enhanced Study Strategies**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20039

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This 3-year project will demonstrate and evaluate the extent to which electronic study strategies improve the education and enhance the learning potential of students with learning disabilities in middle schools and high schools.

**METHOD:** The project will work with special education teachers and students at four demonstration sites in Oregon to explore the efficacy of computer-based information organizers as tools for studying and learning across the curriculum. Students will be taught three cognitively-based, computer-enhanced study strategies using software designed to facilitate information recording, organization, and manipulation. Specifically, students will learn to use electronic outlining programs, electronic concept mapping programs, and documents using hypertext features to support the development of active reading skills in content area subjects. The project is designed so that, at any given implementation site, electronic study strategies are introduced to students gradually, and influencing variables are systematically manipulated within an overall framework of formative and summative evaluation. Major phases of the program will include: (a) planning, (b) preparation and piloting, (c) individualized implementation, (d) comparative implementation; and (e) documentation and dissemination. Information from each phase will inform successive phases and data from the fourth phase will be used for summative evaluation.

**ANTICIPATED PRODUCTS:** It is anticipated that use of computer-based information organizers as study tools by students with learning disabilities will enhance their academic achievement in subject areas across the curriculum, improve their self-concept and motivation for learning, and promote increased integration of special and regular education. One product developed through the project will be a manual for implementing the strategies found to be effective with special emphasis on guidelines for teacher inservice and maximizing the transfer of electronic studying to general education classes. In addition, three videotapes describing the project and recommending strategies for using each of the three electronic studying strategies with students with learning disabilities will be developed. Widespread dissemination of research findings through manuscripts prepared for publication and papers for presentation at conferences will occur, each with a particular focus on translating research findings into usable suggestions for practitioners.

## **Project LITERACY-HI: Literacy Improvement via Text Enhancements and Reading Assistance for Children and Youth with Hearing Impairments**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180G30027

BEGINNING DATE: 6/01/93

ENDING DATE: 5/30/96

### **ABSTRACT**

**PURPOSE:** This project will conduct research into the benefits of electronically-enhanced text for mainstreamed students who are hard-of-hearing.

**METHOD:** Participating students (N=77) will be provided with Macintosh PowerBooks containing electronically-enhanced versions of their classroom textbooks. Short-term effects of electronically-enhanced reading materials on the comprehension of content-area materials and academic achievement in regular classes will be assessed, as will the long-term effects on the literacy skills, academic achievement, and psychosocial development of students who are hard-of-hearing. Additional research will explore the extent to which environmental factors effect and are effected by the use of enhanced reading materials among such students.

**ANTICIPATED PRODUCTS:** It is anticipated that this technology will greatly enhance students' abilities to read and comprehend text from content area materials by supporting their literacy needs unobtrusively, thereby maximizing their chances for success in least restrictive environments. Technical reports will be written on each phase of the project. Articles will be written for publication in technology-oriented, content-area, language arts, and special education publications. Presentations will also be made at national conferences.

### **Linking Text-Processing Tools to Student Needs**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180G20005

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/95

### **ABSTRACT**

**PURPOSE:** This project will create, validate, and implement a taxonomy for organizing the many text-processing programs available to classroom teachers.

**METHOD:** During Year 1, commercial, shareware, and public domain text-processing programs will be systematically analyzed to develop a taxonomy of critical design features. Concurrently, a cadre of students in grades 5 through 8 will be assessed individually to identify specific strengths and weaknesses. During Years 2 and 3, effects of linking selected software design characteristics to patterns of student needs will be examined via a series of experimental studies. Students identified and assessed during Year 1 will serve as participants in these studies, which will be conducted in the context of after school and summer writing labs at Western Michigan University. Also during Year 3, the software design taxonomy will be combined with results of the experimental analyses and

other published research findings to develop specific recommendations for linking text-processing tools to student needs.

**ANTICIPATED PRODUCTS:** The project will generate taxonomies for organizing the myriad of text-processing programs now available to classroom teachers and, through a series of experimental analyses, provide new information about the impact of specific software design characteristics on the development of writing skills among students with language-related learning disabilities. Information about the selection and use of appropriate text-processing tools to promote literacy among students with learning disabilities will be disseminated via research- and practitioner-oriented journals, presentations at professional conferences, and a print-based text-processing tools software selection guide for teachers.

### **Features That Work for Teachers: Software Design in Early Childhood Special Education**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180F20009

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will implement a multiple methodological approach to identify, evaluate, and disseminate information on commercial software features that are effective in addressing the learning characteristics for young children with disabilities and meeting their developmental content and instructional needs via technology.

**METHOD:** The project will review the existing literature in the fields of child development, education of young children with disabilities, developmental psychology, and maternal and child health, analyzing this literature for patterns and themes that may be relevant to the use of technology with young children. Using hypotheses about design specifications developed from the literature survey, the project team will examine existing software and identify the design features incorporated in the top 100 programs. In addition to developing a listing of available design features and categorization of the software by design feature, an evaluative component will determine the effectiveness of individual design features using four separate methodologies.

**ANTICIPATED PRODUCTS:** Projects to be developed for dissemination will include an electronic database of the knowledge base, a set of publisher guidelines, practitioner guidelines, and trainer guidelines. Practitioners and publishers will be primary targets of dissemination efforts, to include direct transmission to state education agency (SEA) early childhood and technology coordinators and a paper for presentation at the Software Publishers Association.

## **Demonstration and Evaluation of Interactive Video Instruction**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E30009

BEGINNING DATE: 8/01/93

ENDING DATE: 7/31/94

### **ABSTRACT**

**PURPOSE:** This project will demonstrate and evaluate the benefits of a teacher-managed interactive video instructional (IVI) development model to promote the use of IVI for students with disabilities in inclusive instructional settings.

**METHOD:** The initial phase of the project will focus on objectives for development and validation of an instructional package designed to provide teachers with a series of six IVI-based skills development modules. Each IVI module will be developed through a 12-step instructional development process that will include several stages of formative evaluation and field testing and a final summative evaluation. In the demonstration phase, objectives of the project will support direct training for teacher teams in each of the collaborating demonstration school settings through intensive summer institutes to be offered by project personnel. Beginning in the second project year and continuing through year 3, project personnel will work on-site with each demonstration teacher team to expand and implement team-developed IVI curriculum in demonstration classrooms. Project staff will provide for continuous evaluation of teacher team use of the IVI technology, its effectiveness with students in inclusive settings, and a dissemination effort of project outcomes to interested audiences.

**ANTICIPATED PRODUCTS:** Following completion of the project's initial 3-year demonstration and evaluation effort, a final 6-month extension phase is proposed that will focus on objectives for the development of an informational video-based product descriptive of the IVI instructional modules, the classroom demonstration approach, and the effectiveness of teacher team developed IVI curriculum. In addition, a marketing plan will be developed to support commercial collaboration in the production of the project's validated IVI instructional teacher training modules.

## **National Center to Improve the Tools of Educators (NCITE)**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180M10006

BEGINNING DATE: 10/01/91

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will establish a center to advance the quality of technology, media, and materials (TMM) for providing special education and related services to children with disabilities.

**METHOD:** The Center will evaluate technology, media, and materials across age groups (early childhood to transition), disabilities (mild to severe), and outcomes (enhancing academic learning to improving social relationships). Partnerships will

be formed with major stakeholders including parents, teachers, administrators, researchers, developers, producers, distributors, and representatives of private industry. Major activities will include: developing a strategic framework for aligning design of TMM with needs of children, educational activities, and procedures; conducting analyses and syntheses of quality TMM; providing networks, exchanges, meetings, and focus groups to review and exchange information; and developing and disseminating materials that provide guidance to TMM developers, producers, and distributors/publishers.

**ANTICIPATED PRODUCTS:** Products for dissemination will include research syntheses, newsletters, and guidelines for producers, developers, and publishers of TMM.

## **Multimedia Interactive Learning System for Interpreters**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180J30026

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will develop a computerized interactive multimedia learning system to allow educational interpreters to develop sign language interpreting skills.

**METHOD.** The system will incorporate sound, animation, graphics, and video in an interactive computer environment to: (1) strategically provide user participation and control; (2) fully exploit the powers of multimedia computing in providing training in sign language and the associated visual linguistic expressed by the face, hands, and body; (3) facilitate an evaluation-feedback-training-reevaluation environment through user-controlled computer-based training modules including self-assessment, remediation, and diagnostic tools; and (4) isolate and intensify adverbial markers and clausal boundaries at the sentence level.

**ANTICIPATED PRODUCTS:** The effectiveness and fluency of deaf interpreters should be considerably augmented by the appreciation of a visual language this system will promote. Such interpreters will provide better language models to deaf signers in all contexts, and should be generally more effective as sign language communicators and interpreters.

## **Integrated Application of Computer and Assistive Technology**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180J30031

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will demonstrate the integrated application of existing computer and assistive technologies to better meet the educational needs of deaf and hard-of-hearing students.

**METHOD:** The project will install a campus-wide and state-wide network of 83 personal computers to be used for instructional and communication purposes. Educational software, media, and materials will be reviewed and assessed, with information disseminated through electronic networks, a project newsletter, and other means. In addition, software/media materials will be developed to serve the special needs of New Mexico School for the Deaf populations including non English-speaking students and parents, students with learning disabilities, and those with multiple disabilities. Working samples of assistive technologies will be purchased and demonstrated through the Educational Resource Center on Deafness, through conferences and workshops, at schools and organizations, and to parents and students. All phases of the project will be documented and evaluated.

**ANTICIPATED PRODUCTS:** The project will establish a state-wide network to serve special populations, and in so doing, will demonstrate the innovative use of existing technology to serve the needs of a multicultural, predominantly low-income, and geographically dispersed population.

## **Final Development and Field Testing of a Baby Babble Blanket**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20032

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will intervene with infants with cerebral palsy (CP) using a Macintosh-based early communication and environmental control system, the Baby Babble Blanket (BBB). The BBB is a blanket with built-in switches that a small child can activate by kicking or rolling to produce digitized sounds, including babbles, words, sentences, or nursery rhymes created and arranged to fit a particular child.

**METHOD:** The BBB system will be further developed and field tested in the home and in two schools for children with physical disabilities. Specifically, the program will: (1) develop guidelines on when this system is appropriate using two infants who are not disabled; (2) provide babbled vocalizations and later words to three infants with CP; and (3) develop the system to meet the educational goals of 10 children with multiple disabilities in two schools with strong technology support. The computer program in place to control this system



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incorporates a single subject design, allowing staff to collect data on the response of children to sound output that is compared to a repeated baseline condition with no speech output. The project will be evaluated through an examination of these and other data, logs and a questionnaire to be filled out by parents and teachers, and by the assessment of an outside evaluator.

**ANTICIPATED PRODUCTS:** End products to be disseminated will include: (1) a completed version of the software, (2) manuals and help screens, (3) digitized sound libraries, (4) training procedures and videotapes, (5) evaluations of the blanket, training, and documentation, and (6) guidelines for appropriate use with case descriptions and suggestions for educational planning.

### **Improving Management, Planning, and Achievement Through Computer Technology: Project IMPACT**

GRANT NUMBER: H180E20004

BEGINNING DATE: 9/01/92

ENDING DATE: 8/31/95

#### **ABSTRACT**

**PURPOSE:** This project will examine the contribution of contextual features to the efficacy of computer-managed instruction (CMI) in the field of mathematics instruction.

**METHOD:** Contextual features to be studied are: (a) administrative support and staff involvement in planning and implementing innovations; (b) specialized training and ongoing technical assistance; and (c) congruence between the innovation and salient dimensions of the curriculum. The first project year focused on collaborative planning, pilot implementation, formative evaluation and refinement, and description of collaborative planning and pilot activities. Thirty teachers and 120 pupils will participate in CMI with collaborative planning, while another 15 teachers and 60 pupils each will participate in CMI without collaborative planning and non-CMI conditions. Year 2 is devoted to full-scale implementation, research on contextual features, and continued formative evaluation and refinement, studying four groups of 15 teachers and 60 pupils each, in which contextual features will be systematically varied. In Year 3, continued implementation will be the focus, along with documentation of utility and effectiveness under optimal conditions, final evaluation and refinement, and dissemination. In this phase, 45 teachers and 180 pupils will participate in CMI with optimal contextual features. In addition, a 6-month option for final collaboration with other grants and dissemination activities is planned.

**ANTICIPATED PRODUCTS:** This project is expected to produce critical outcomes and otherwise unavailable information for the field. Products will include (a) upgraded, validated computer programs to facilitate implementation of a comprehensive CMI math system, which enhances teacher decision making and individualized instruction and improves achievement levels among students with disabilities; (b) critical information about methods and materials required for successful implementation of technological innovations; (c) key information about the relative impact and benefits of technology on educational improvement; (d) data on the role of grade, age, and severity of disability in



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determining outcomes; and (e) manuals and videotapes to enhance teacher training in these methods. Scholarly findings will be disseminated via ERIC reports, journal articles, and conference presentations.

**Videodisc Technology and Sign Language for Improving  
Reading Skills of Deaf Middle School Students**

GRANT NUMBER: H180G20021

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

**ABSTRACT**

**PURPOSE:** This research project will explore the challenges deaf individuals face in comprehending written English and will examine the assistance that may be afforded by signed renditions (or versions) of the information via interactive technology.

**METHOD:** The vehicle for this exploration is an interactive video system capable of displaying reading comprehension passages and items (i.e., questions) in either of two signed versions (American Sign Language or Manual English) in addition to written English text. Reading comprehension sets will be administered to a total of 120 deaf middle school students in a variety of conditions. Issues of performance and preference for the language version will be studied in light of: (a) content variables, such as the particular type item or passage; and (b) student variables, such as prior exposure to particular forms of signed communication language and age at onset of deafness. Special attention will be paid to determining: (a) how deaf individuals with different backgrounds approach difficult inferencing problems, and (b) to what extent they have trouble with particular vocabulary versus higher-level constructions, etc.

**ANTICIPATED PRODUCTS:** This project should lay a groundwork for automated interventions for instruction, performance support, and diagnostic assessment for deaf individuals performing language comprehension tasks. The potential of using sign language to facilitate development of reading comprehension will be explored, as will possibilities for accommodations that may be made for deaf individuals in academic and other settings. If the materials under examination prove useful for deaf students, the possibility of duplicating and packaging them for dissemination to schools and individuals will be explored. Presentations of project findings will be made at relevant professional conferences, and a paper will be submitted for publication.

## Telecommunications for All

**PRINCIPAL INVESTIGATOR:**

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Washington, DC 20002  
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GRANT NUMBER: H180J30025

BEGINNING DATE: 8/01/93

ENDING DATE: 7/31/96

### ABSTRACT

**PURPOSE:** This project will develop systems for the assistive technology application of telecommunications for deaf children.

**METHOD:** Off-the-shelf and emerging communications technology will be tailored for improved access by children in school environments, and staff will develop systems, materials, and activities that enable and encourage telephone use based on the developmental level of the child. The project will begin with a needs assessment conducted at the schools, a survey of materials and curricula from other schools, and a review of all candidate products. A preliminary design of at least one system for providing an array of technologies at one site will be developed, followed by review by a panel of experts. The system will be assembled and software written to integrate the components, provide a user-friendly interface, and provide tutorials and other information. The prototype system will initially be tested at schools closest to the research system, and then placed farther away as system reliability is established. The system will be evaluated for cost, reliability, technical support required, ease of use, training requirements, and impact on children's abilities to use visual telecommunications.

**ANTICIPATED PRODUCTS:** The systems and materials generated will result in greater program accessibility and appropriateness for deaf children, use of telecommunications at earlier ages, and an accelerated program of instruction on visual telecommunications compared to the present case.

## Literacy for Life: MOST Environments for Accelerating Literacy Development in High School Special Education Students

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20044

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### ABSTRACT

**PURPOSE:** This project will develop, implement, and evaluate an innovative multimedia approach to the education of high school students who have mild disabilities and serious problems in reading and literacy.

**METHOD:** The project will employ a motivational approach to help students acquire confidence, skills, and knowledge necessary for academic and vocational success. MOST environments consist of three components: (1) the Peabody Literacy Program, a multimedia program that combines fluency instruction and comprehension instruction; (2) the Multimedia Producer, a multimedia software program that allows students to create their own multimedia production; and (3) two-way video teleconferencing. The Peabody Literacy Program anchors instruction around important life topics, such as AIDS, substance abuse, and sexuality.

**PRINCIPAL INVESTIGATOR:**

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Center for Persons with  
Disabilities  
Technology Division  
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**ANTICIPATED PRODUCTS:** Student multimedia presentations will be displayed in kiosks in community malls and high schools. Other materials pertaining to the dissemination effort will include manuscripts for publication, conference presentations, and the commercial availability of the MOST environments.

**An Integrated Multimedia Information Tool for Persons  
Treating Students with Severe Disabilities**

GRANT NUMBER: H180E20016

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/95

**ABSTRACT**

**PURPOSE:** This demonstration and evaluation project uses CD-ROM, multimedia, and expert systems technology to provide field-based support to persons treating children with severe disabilities. The project will address those problems that are considered severe and for which local schools consider themselves ill-equipped in training and experience.

**METHOD:** The CD-ROM information base will integrate an expert system to improve decisions to select and implement appropriate treatments; a library of staff development multimedia programs using visuals, animations, and sound to train professionals in the effective implementation of specific intervention; and a range of print materials, including materials to facilitate effective parental involvement. A combination of selected mentor training procedures and the CD-ROM content will be used to deliver a field-based training program that will address both the acquisition of needed professional expertise and the highly collaborative nature of a treatment environment that includes family, community, and school settings. Summative evaluation will incorporate an experimental design using randomly selected treatment and control groups. Project outcomes will be measured by: (a) the quality of treatments selected; (b) the quality of specific interventions; (c) changes in the collaborative relationships and attitudes of participating professionals; and (d) changes in student outcomes.

**ANTICIPATED PRODUCTS:** The state-wide implementation of the training program will be initiated after the formative evaluation and in parallel with the controlled summative evaluation. State resources have been committed to extend the training on the expiration of federal funding. Three technical reports and associated research articles will be disseminated in conjunction with the final report and training materials.

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## **Developing and Demonstrating a Prototype Music System for Students with Physical Disabilities**

GRANT NUMBER: H180D20022

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will design, develop, evaluate, and prepare for marketing a prototype music education system for use by students with physical disabilities.

**METHOD:** The music system will be composed of hardware, software, and supporting materials for use in both home and school environments by students with physical disabilities. Field evaluation activities will take place with 20 students over a 2-year period, including active involvement from parents and teachers who will be selected from among the population of students with orthopedic disabilities at a city elementary school. First year activities will involve the prototype and supplemental materials development and initial field tests. The second year will focus on training and completion of evaluation, product refinement, and dissemination of the completed product and findings.

**ANTICIPATED PRODUCTS:** The outcome of this project will be a marketable music system prototype that will enhance musical experiences for children with physical disabilities, along with the supplemental materials to support its implementation in homes and at school. In addition, the active exchange of information, dissemination, and use of the findings of the project will encourage both the public and private sectors to adopt and use the technology. Training materials will include a demonstration music program in the software and an accompanying videotape providing step-by-step instructions meant to augment the documentation.

## **Expressive Arts Project for Young Children with Disabilities**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180D20019

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will develop, field-test, and disseminate a developmentally appropriate early childhood arts technology curriculum and an accompanying interactive CD-ROM, ArtStart, for young children with disabilities, their families, and program team staff.

**METHOD:** During the first project year, the curriculum and the CD-ROM will be developed and pilot-tested with young children with characteristics of the target population, their families, and staff who work with them. Curriculum activities developed around technology applications in the visual arts, music, and dramatics will use hardware, peripherals, and software available commercially, as well as the CD-ROM to be developed locally. The CD-ROM will include four sections: "ArtMart," a visit to an art museum and to artists; "KIDS ArtMart," a visit

to see children's art, and an "image maker," "ClickStart ART," based on the developmental images of young children and emerging symbols of writing that appear in their drawings and paintings. Real time video, still photographs, music, adult voices, child voices, synthesized speech, conversations, and printing options will be included in the CD-ROM, which will run on a Macintosh platform. In the second year, the curriculum and CD-ROM will be field-tested and revised, and marketable prototypes will be developed.

**ANTICIPATED PRODUCTS:** Training materials and a prototype implementation and training package will be produced, including personnel and family training manuals and caption videotapes and/or videodisks. Marketing and dissemination activities will occur using assistance from Apple Developer Group's Business and Marketing Services and other resources including a satellite television production, conference presentations, and articles. The audience targeted for dissemination and marketing will be potential users of the products as well as the private sector.

### **A Virtual Reality Training Program for Motorized Wheelchair Operation**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E30001

BEGINNING DATE: 3/01/93

ENDING DATE: 2/29/96

#### **ABSTRACT**

**PURPOSE:** This project will demonstrate and evaluate four virtual reality training programs designed to teach nonambulatory children to operate a motorized wheelchair safely in the natural environment.

**METHOD:** Four virtual reality training programs designed to increase driving skill and the extent to which children use their wheelchairs in the school and community environment will be planned, created, and tested. These training programs will then be implemented in three demonstration sites, two of which will be in the public school system, with an emphasis on recruiting and training children between the ages of 6 and 12. Using both single subject and group design methodologies, staff will evaluate the extent to which virtual reality training increases driving skill and wheelchair usage among trained children.

**ANTICIPATED PRODUCTS:** A technical report will be written at the end of each year describing the project and results of evaluation efforts to date. In addition, a manual for implementing the strategies found to be effective in the project will be written, including guidelines for implementing the program in public schools. Journal articles will also be prepared for publication in technology-oriented and practitioner-oriented publications concerned with special populations.

## **The Technology, Educational Media, and Materials Program (TMMP)**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: HS93032001

BEGINNING DATE: 10/10/93

ENDING DATE: 9/30/96

### **ABSTRACT**

**PURPOSE:** This project will support the transfer of knowledge developed under the Technology, Educational Media, and Materials Program (TMMP) through marketing, communication, and evaluation activities.

**METHOD:** Marketing activities will promote TMMP's national agenda by securing a broad base of commitment, support, and participation in the ongoing agenda building process among researchers, developers, and practitioners. Communication activities will work to synthesize the existing knowledge base of technology, media, and materials, and transfer that information for use by appropriate groups within both the special and regular education communities. Evaluation activities will continually assess both the ongoing relevance of the four TMMP Program Commitments as well as concrete progress in achieving the Commitments' goals to educate children and youth with disabilities. The Chesapeake Institute's general approach will be based on Daniel Yankovitch's three states of moving people to public judgment and action; all marketing, communications, and evaluation plans will thus feature components focusing on consciousness raising, working through, and achieving resolution.

**ANTICIPATED PRODUCTS:** Products corresponding to the communication component of the project will include: video materials and public service announcements; written materials including information kits, newsletters, teachers' guides, and compendia of expert opinion; media and informational events, such as televised town meetings and a 20th anniversary celebration of the Education for All Handicapped Act; and networking of TMM experts via interactive information lines and existing computer networks.

## **CD VisROM: Remote Access to CD ROM by Visually Disabled Students**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20053

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** Project CD VisROM is a 3-year effort to develop a system by which students with visual impairments can gain remote access to the information contained in CD ROM software. Adaptive computing hardware and software will be employed to meet these goals via telecommunications from school or home.

**METHOD:** To develop the project's products, project staff will first train a group of eight teachers who will in turn train eight students from grades 7-12, four of whom will be blind and four of whom will have partially impaired vision. Low vision access equipment will focus on a small notebook computer, while



Braille access equipment will feature the Braille 'N Speak system, which includes a speech synthesizer and screen reading program. Each device will be linked to a small modem for telecommunications. A thorough evaluation of the system and the training materials will take place. Subjects' school performance will be compared to that of a control group. During the third and final year, the teachers of the control group will be trained, and they in turn will instruct their students in the use of the system.

**ANTICIPATED PRODUCTS:** At the conclusion of the project, a thoroughly evaluated and field-tested manual will be disseminated along with a videotape illustrating the use of the system. In addition to the print form of the manual, diskettes containing the information will be made available in various formats for use by individuals with visual impairments.

### **MainePOINT (Providing Opportunities for Integrating New Technologies)**

**PRINCIPAL INVESTIGATOR:**

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MainePOINT  
Augusta, ME 04330-9410  
207-621-3191

GRANT NUMBER: H180E20048

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

#### **ABSTRACT**

**PURPOSE:** This project will research and evaluate the benefits of using state-of-the-art educational technologies to provide a multisensory environment for teaching American Sign Language (ASL) to children who are deaf or hard of hearing.

**METHOD:** The project will design, offer, and evaluate a 30-week American Sign Language telecourse to students in grades 7 through 12 in 20 Maine schools over a 3-year period. The telecourse will incorporate interactive television, real-time captioning, camcorders, videotape, Phone Communicator, and computers to create a multisensory learning approach. The project will use a sample of at least 30 students who are deaf or hard of hearing to demonstrate, evaluate, and document the effectiveness of using the targeted technology to improve the education and expand the learning potential of students who are deaf or hard of hearing. Factors to be measured will include increased student ability to communicate in ASL, increases in level of literacy, and the broadening of students' knowledge and understanding of deaf culture. The project will also identify factors that promote or impede the optimal use and impact of the targeted technologies in the education of children who are deaf or hard-of-hearing.

**ANTICIPATED PRODUCTS:** In addition to impacting the design and delivery of American Sign Language instruction in general, this project will contribute a range of written and videotaped products to the education community including: a videotaped telecourse in ASL; a curriculum for teaching ASL in a multisensory environment; a course guide; a professional development model for teachers, special educators, guidance personnel, media specialists, administrators, and other education professionals; a technical support model for schools; a model for training students in the use of the technology; a model for self-directed learning using camcorders, videotape, and the closed-captioning VCR; and student-produced videos with real-time captioning.



**PRINCIPAL INVESTIGATOR:**

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## **Project Alive! Acquiring Literacy Through Interactive Video Education**

GRANT NUMBER: H180H20034

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/96

### **ABSTRACT**

**PURPOSE:** This project will demonstrate and evaluate uses of interactive video as a means of increasing literacy development and interest among students who are deaf and hard-of-hearing.

**METHOD:** The project will use Thurston's START model, which indicates that Support, Time, Access, Resources and Training are all necessary for the successful implementation of innovation in the classroom. An additional teacher empowerment model will emphasize extensive teacher control of the implementation process and extensive teacher involvement in decision making. Four programs -- two residential schools and two public school programs -- will participate in the 3-year project. Each program will select a team of teachers and administrators for participation, and participants will be involved in all phases of the project, including preparation, training, curriculum development, support, implementation, institutionalization, dissemination, and evaluation. Year 1 will focus on uses of captioned movies available on existing videodisks. Year 2 will expand uses of interactive video to materials developed by teachers and students in project sites. Year 3 will focus on shifting from the external to internal support for interactive video, on conducting a summative evaluation, and disseminating results at regional and national levels.

**ANTICIPATED PRODUCTS:** Outcomes will include: (a) a databased, empirical description of the process by which interactive video was implemented in programs for students who are deaf and hard-of-hearing; (b) descriptions of contextual variables and student characteristics that may influence the success of implementing interactive video in the classroom; (c) a model of successful implementation based on these descriptions; (d) curricular materials for interactive video instruction; and (e) a video record of the implementation process, potentially for future use in training others for replication.

## Demonstrating and Evaluating the Benefits of Captioned Instructional Television

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20018

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will demonstrate and evaluate the benefits of captioned instructional television for special education students.

**METHOD:** Project staff will caption video materials and select precaptioned materials in consultation with teachers. After the videos are captioned and guidelines for study developed, project staff will conduct training sessions on the use of the television equipment and decoders as well as the captioned materials to ensure that participating teachers are comfortable with the technology and materials. While this initial planning and development is underway, staff will establish a baseline of information regarding the status of and attitudes toward instructional television. Researchers will use participant observation and interviewing techniques to define the domains of inquiry for subsequent stages. These stages will include: a pilot study of the research strategies, eight captioned videos, and instructional guidelines; introduction and use of 12 captioned videos and instructional guidelines for all of the 8th-grade classes in one participating school; and full-scale implementation of 16 captioned videos and materials in all of the 8th-grade science classes in the district.

**ANTICIPATED PRODUCTS:** In addition to the knowledge and understanding gained from the data collection and analysis effort, the project will produce: (1) 16 captioned video segments, with accompanying guidelines for integrating them into the science curriculum; (2) four classroom vignettes of students and teachers as they adapt to captioning technology; (3) manuscripts submitted for publication in professional journals and the ERIC database; and (4) 57 copies of the final report for submission to state and territorial directors of special education.

## Integrating Captioning Technology with Mainstreamed Social Studies Instruction

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E30048

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** This project will explore the benefits of captioned television with all mainstreamed students with disabilities. Factors leading to the successful adoption of captioned television in mainstreamed classes will also be explored.

**METHOD:** The study will begin by conducting a baseline study of the factors related to the use of instructional television (without captions) and discovering attitudes and perceptions of captioning. The next step will be a collaborative effort in which project staff and teachers select segments from social studies-related television shows and develop a set of teaching materials for each segment,

delineating specific ways in which teachers can integrate the videos into the regular social studies curriculum. This will be followed by a pilot study conducted in two social studies classes in which staff will test research strategies, instruments, videos, and instructional materials. In subsequent stages, the project will increase the number of 8th-grade classes to include an entire school and ultimately the entire district.

**ANTICIPATED PRODUCTS:** In addition to the knowledge and understanding gained from the data collection and analysis effort, project products will include: 16 captioned video segments, with accompanying guidelines for integrating them into the science curriculum; four classroom vignettes of students and teachers as they adapt to captioning technology; manuscripts submitted for publication in professional journals and the ERIC database; and a final report submitted to state and territorial directors of special education.

### **Development of a Personal Caption Display Prototype to Benefit Students Who Are Deaf**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180J30040

BEGINNING DATE: 6/01/93

ENDING DATE: 5/31/96

### **ABSTRACT**

**PURPOSE:** This project will develop a prototype personal caption display system that could be worn by students who are deaf.

**METHOD:** This system would use a set of special eyeglasses to provide a caption display. The glasses would be battery operated and would receive captions via a wireless link; captions themselves would be viewed in the lens, and the optical design would be such that the caption would appear to be projected onto a distant screen or other object. This imaging would save users from having to refocus their vision to read captions. While the primary application of this technology will be to provide captions for lecture portions of a lesson, further applications for captioning television, movies, and other media are also foreseen. In addition, by using several transmission frequencies, this technology could be used to simultaneously provide captions in multiple languages.

**ANTICIPATED PRODUCTS:** Development and testing of such a system could be a major breakthrough in captioning technology, providing a personal-level solution to many common captioning problems. With the development of such a wearable personal caption system, other major sources of aural communication would become more equally accessible to deaf persons.

## **PROJECT WRITE: Writing and Reading Instruction Through Technology, Educational Media, and Materials**

### **PRINCIPAL INVESTIGATOR:**

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GRANTNUMBER: H180G20016

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/96

### **ABSTRACT**

**PURPOSE:** This project will focus on: (1) investigating the availability, quality, use, and effectiveness of technology, educational media, and materials (TEMM) in current instructional settings for children with developmental disabilities; (2) conducting surveys and comparative case studies to test the generalizability of Phase I studies; and (3) conducting a series of intervention studies designed to advance the availability, quality, use, and effectiveness of TEMM based upon the findings of Phase I and II studies.

**METHOD:** Subjects will be children with developmental disabilities, ages 3-12, their families, and the professionals who address their literacy learning needs in preschool and school settings. Three typical settings in which preschoolers are educated and three typical settings in which elementary school-aged children are educated will serve as principal research sites. A socio-communicative model of language and literacy use and a comprehensive model of the study of classroom teaching will serve as the frameworks driving the research. Qualitative and survey research methods will be the primary means of conducting Phase I and II research into the state of the art in the use of TEMM to promote literacy. Experimental designs will be employed in Phase III intervention studies.

**ANTICIPATED PRODUCTS:** Research findings will be shared through multiple means including: publication in peer-reviewed journals, publication in newsletters and journals for families of children with developmental disabilities and the professionals who serve them; and conference presentations, particularly the Carolina Literacy Symposium.

## **Telecommunications in Literacy Intervention for Inner City Learning Disabled and At-Risk Students**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20027

BEGINNING DATE: 10/01/92

ENDING DATE: 4/30/96

### **ABSTRACT**

**PURPOSE:** This project will establish a bicoastal "electronic village" in south central Los Angeles and Chinatown in New York City that will address the low level of literacy among at-risk students and those with learning disabilities through the motivation of communication through electronic networks.

**METHOD:** Electronic networks, word processing, desktop publishing, and various audio and video instructional media will be used by 112 at-risk students and 112 students with learning disabilities. Staff development training, ongoing

technical assistance, and instructional and resource support will be provided by project personnel. Staff development will include training in the use of electronic networks through e-mail and bulletin boards, desktop publishing, diverse instructional methods, and ongoing technical, curricular, and material support. The program will be documented by observational data such as videotapes of implementation and field notes. A database school-based assessment program has been created for implementation in the schools to provide administrators, teachers, and research staff with continuous information to aid decision making for improvement of instruction.

**ANTICIPATED PRODUCTS:** Contributions to the theoretical knowledge base include provision of data on: (1) differential effects of literacy intervention using electronic networks and diverse instructional methods; (2) differences between inner-city at-risk students and those with learning disabilities from multiethnic, multicultural and multilingual backgrounds on achievement scores, quality of writings, learning and social behavior, and literacy attitude as a function of a technologically-supported intervention program; differential effects of various promising intervention strategies integrated with state-of-the-art technology, interactive and communicative approach to literacy instruction, and a writer's workshop learning environment emphasizing writing processes; (4) use of comic books and audio cassettes of motivating materials such as old-time radio shows as stimuli; and (5) various administrative and evaluative procedures regarding technology integration into instructional practices.

### **Personal Captioning for Students with Similar Language-Related Special Learning Needs**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E30021

BEGINNING DATE: 6/01/93

ENDING DATE: 5/30/94

### **ABSTRACT**

**PURPOSE:** This project will expand the use of a promising educational technology and conduct a comprehensive evaluation of its implementation and its efficacy with deaf students, students who are hard-of-hearing, and students with learning disabilities.

**METHOD:** Developed in 1991 as a tool to improve the language development of deaf students, the CC School workstation lets students work on literacy skills through the control of video, simple word processing software on a PC, and TV captions. In collaboration with the National Technical Institute for the Deaf and six school sites, staff will design experiments to measure the effectiveness of CC School. In addition, the project will evaluate attitudes of teachers, administrators, and students toward the use of the CC School, and factors that facilitate or limit effective use of the technology. Evaluation results will inform further use of the technology during the project period and after the project has ended. Both mainstream and segregated educational settings will be used. Students participating will range in age from 10 to 22, and be either English-speaking only, bilingual, or multilingual.

**PRINCIPAL INVESTIGATOR:**

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University of Maryland  
College of Education  
Department of Special Education  
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301-405-6472

**ANTICIPATED PRODUCTS:** Project findings will be disseminated through traditional outreach channels as well as via a comprehensive teachers's manual and a demonstration videotape. Project staff will provide training and ongoing support for school personnel via training materials, site visits, project conferences, electronic mail, a newsletter, and other regular communication.

**Features That Support Learning by Secondary Students  
with Learning Disabilities**

GRANT NUMBER: H180G20011

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

**ABSTRACT**

**PURPOSE:** This project will investigate the instructional design of hypermedia textbooks to support reading, learning, and studying by secondary students with learning disabilities. Science textbooks will be the primary focus of the associated studies.

**METHOD:** Three studies will first investigate the use of speech synthesis with 9th- and 10th-grade students with severe and moderate learning disabilities. Speech synthesis will be investigated by itself and in combination with supports for strategic processing. Studies will then focus on the integration of video with text to provide explanations of key concepts and relate them to prior knowledge. Finally, studies will examine the use of graphic organizers to structure the activation of prior knowledge, reading of the text, and notetaking. The project will use as a research tool a software system for developing hypermedia textbooks called the Student Assistant for Learning for Text, which is designed to generate hypermedia texts including a variety of support features tailored to the needs of students with reading difficulties.

**ANTICIPATED PRODUCTS:** Results of this research will be generally applicable to the design of hypermedia systems for students with reading disabilities, as well as for students without disabilities. The most immediate audience for dissemination of findings will be other researchers and developers interested in educational applications of technology in special education. Technical reports and results will be presented at local and national professional conferences and published in professional journals. In addition, findings will be presented at conferences of the publishing industry, since publishers will be key to the future development of textbooks in electronic formats.



## **Effects of Individualized Closed-Captioned Video Prompt Rate on Reading Skills of Disabled and Nondisabled Elementary Students in Inclusive and Noninclusive Classrooms**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E30034

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

### **ABSTRACT**

**PURPOSE:** This project will examine and demonstrate how individualizing closed-caption prompt rate, manipulated to match each student's reading level and comprehension reading rate, can be a successful technological reading approach.

**METHOD:** A cluster equivalent materials design comprised of two groups of 4th-grade students who are mildly disabled and nondisabled in two classroom environments (inclusive and noninclusive) will participate in a limited pilot study and a full-scale study for one academic year. These groups of students will receive alternate treatments of: (1) digital video interactive materials with individualized prompt rate and (2) closed-captioned videotapes with no individualization of prompt rate. A demonstration of this technology in both inclusive and noninclusive classrooms will be conducted during year 3 of the grant. Appropriate data analyses will be applied, results graphed, interpreted, reported, and disseminated.

**ANTICIPATED PRODUCTS:** Results from this project will give educators new directions in improving reading level, comprehension, and retention skills in elementary students. In addition, hypermedia technology will be demonstrated and training offered for interested educators and policy makers at school-based demonstration sites. Videotape as well as CD-ROM products will be produced for a national educational market for implementation and replication.

### **Project: POWER-ART**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180D20009

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will develop two complementary prototype computer tools, their field testing, production, and marketing.

**METHOD:** The two prototypes will consist of: (a) a Macintosh HyperCard software shell to allow the creation of individual curricula and art production across the visual/graphic arts, music, storytelling, and movement; and (b) an interface for the PowerPad to further extend the availability of user access to the software shell. Together, these two prototypes are designed to extend current practice in the application of assistive technology in the arts, while providing documentation, training, and outreach to stringently test the prototypes, supportive curricular guidelines, and training package.



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**ANTICIPATED PRODUCTS:** In addition to the prototypes themselves, the project will produce a curriculum guide, for use with the software shell, and a training package for use in training and dissemination of the primary products. These products will be collectively disseminated through announcements and articles in professional publications and electronic bulletin boards, presentations and demonstrations at national technology-related meetings and conventions, audio- and video-teleconferences, and distribution of sample copies of the prototype products.

**Learning by Design: Multimedia Projects for Students with Disabilities**

GRANT NUMBER: H180E30043

BEGINNING DATE: 7/01/93

ENDING DATE: 6/30/94

**ABSTRACT**

**PURPOSE:** This project will demonstrate the potential of multimedia technology project-based activities to promote the learning, self-perceptions, and collaboration of students with disabilities.

**METHOD:** The project will be conducted in three middle schools in the Christina School District, each of which serves over 1,000 students, roughly a quarter of whom live with disabilities. By providing equipment and technical support for students to work with multimedia technology, staff will study the effects of collaborative, multimedia-based learning activities on students' knowledge, problem solving and critical thinking, collaboration with peers, self-efficacy, and achievement goals. Staff will also assess the impact of participating in these projects on the acceptance and integration of students with and without disabilities. Further, staff will examine the preparation and support necessary for teachers to implement these activities in classroom settings.

**ANTICIPATED PRODUCTS:** The project will develop curriculum materials, videotapes, and case studies based upon these findings that will be disseminated to educators and researchers throughout the nation.

## **Making CD-ROM Reading Software Accessible to the Deaf**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180J30008

BEGINNING DATE: 10/01/93

ENDING DATE: 9/31/96

### **ABSTRACT**

**PURPOSE:** This project will improve the reading skills of deaf students by adding Signed English and American Sign Language to the printed word to existing CD-ROM software.

**METHOD:** The project will adapt existing CD-ROM software so that it is beneficial for the deaf, create new CD-ROM reading materials for the deaf, and produce a model for developers and publishers that details how to adapt existing CD-ROM software for the deaf. These materials will be adapted, created and produced for elementary, middle, and high school students who are deaf. The project will evaluate student progress in vocabulary, picture word association, syntactic constructions, sign to printed word, and ASL understanding. This evaluation will include students who use unmodified software and students who use the modified software.

**ANTICIPATED PRODUCTS:** The evaluation findings and software development requirements will be presented at conferences for educating the deaf and technology applications. In addition, this project will contract with a commercial distributor of computer software to market the CD-ROM reading software for students who are deaf.

## **Integrated Curriculum and Lifestyle Knowledge**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E30016

BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

### **ABSTRACT**

**PURPOSE:** This project will develop, implement, and evaluate powerful instructional interventions employing multimedia-based anchored instruction coupled with an integrated curriculum in the areas of literacy (reading and writing) and social studies.

**METHOD:** The project will be implemented in the Williamson County School System, which currently serves 12,216 students in 20 schools, including almost 1,800 students with various disabilities. Eighth-grade students with mild disabilities who are experiencing learning problems and who are receiving special education services either in mainstream settings or through building-based resource rooms will be the target population. The project will be implemented in one middle school building per project year, including one mainstream social studies program and one resource room program. Instructional interventions will be developed incorporating research findings from the areas of cognition and computer/videodisc technology for students with mild disabilities. The curriculum will incorporate "life lessons" to enhance students' planning, survival behavior

**PRINCIPAL INVESTIGATOR:**

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skills, and employment possibilities by integrating authentic problem situations into the subject-area curriculum. This will be done using multimedia technology, including videodiscs controlled by Hypercard on Macintosh LICC computers through an anchored instruction model.

**ANTICIPATED PRODUCTS:** Project products will include: (1) publication of information about videodiscs developed under the grant; (2) manuscripts describing project results for publication in special education journals; and (3) conference presentations at local, regional, and national professional gatherings.

## **Computer-Enhanced Inclusion**

GRANT NUMBER: H180E30031

BEGINNING DATE: 10/01/93

ENDING DATE: 9/30/94

## **ABSTRACT**

**PURPOSE:** This project will demonstrate and develop the use of technology as an in-class communication and instructional management tool.

**METHOD:** A total of six teachers from two schools will participate in the project, three from grades 3-5 and three from grades 6-8. Five normally achieving and five low achieving students or students with mild disabilities will be identified as participants in each class. A computer-based, "all students respond" classroom communication technology system will be implemented to assist teachers in the delivery, management, and assessment of reading, mathematics, and spelling, instruction, with a focus on building an effective environment of inclusion for children with disabilities. Classroom observations of participant teachers and students will focus on process variables such as engagement, academic responding, teacher-student interaction, and teacher-student questions. The project will also focus on development of the technology's options for reporting and record-keeping. These options will be used to refine a skills measurement system that will allow teachers to make day-to-day, informed decisions about regrouping, reteaching, and reporting. The project will also use the technology to develop and support curriculum-based, general outcome assessment procedures. Probes will be administered with technology support in groups. Group and individual performance will be computer scored, graphed, and displayed.

**ANTICIPATED PRODUCTS:** For teachers, the project will examine training, planning, organization, support, and teaching activities necessary to produce effective, fully inclusive, manageable instruction with supportive technology. Dissemination activities and products anticipated include demonstrations and program publicity, conference presentations, written reports, and an invited conference for sharing results.

## **Creating Dance Life Forms: A Project to Develop Animation Software Adaptations and Dance Curriculum for Students with Physical Disabilities**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180D20004

BEGINNING DATE: 1/01/93

ENDING DATE: 12/31/94

### **ABSTRACT**

**PURPOSE:** This project will create and disseminate curricula and curricular materials to educational and recreational community-based entities so that they may create instructional settings in which students with physical disabilities can explore, experience, and choreograph dance within a computer-generated virtual environment.

**METHOD:** Using Life Forms, a Macintosh program developed to support the creative process of animation and human movement composition, and a combination of assistive computer technologies, this project will attempt to give students with disabilities the opportunity to participate meaningfully in the movement arts. Project staff will develop replicable, computer-based, model dance programs for community, middle/high school, and community college settings for children with physical disabilities between the ages of 12 and 21. Experimental classes will be conducted with students from all target groups, and the appropriateness of portions of the curricula and assistive technologies will be evaluated in all target environments. Students' work will be performed by a professional dance company as part of their public holiday dance concert.

**ANTICIPATED PRODUCTS:** The project will develop interdisciplinary curricula and a documentary video bringing together diverse portions of the community such as movement therapy, dance and theatre arts, and computer services practitioners. An opportunity will be created for ongoing creative interaction between the artistic and disabled communities. The project will also provide a model that can be widely, easily, and affordably replicated on both a state and national level, using technology readily available at K-12 and community college sites.

## **Access Through Captioning: An Improved Captioning System for Programs That Serve Deaf and Hard-of-Hearing Students**

### **PRINCIPAL INVESTIGATOR:**

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508-531-8555

GRANT NUMBER: H180J30036

BEGINNING DATE: 9/12/93

ENDING DATE: 9/12/96

### **ABSTRACT**

**PURPOSE:** This project will develop a captioning system for school use that is affordable, easy to use, and appropriate to the varied educational needs of students who are deaf or hard-of-hearing.

**METHOD:** The project will use a captioning workstation to improve delivery of curriculum content to deaf and hard-of-hearing students; it will also explore the possibilities inherent in making other materials and events, such as audiotapes and school performances, accessible via external display devices. The project will focus on the use of captioning in language arts classes, drawing on the researchers' work in the creation of computer-based reading and writing supports for people with language difficulties. The Center for Applied Special Technology and WGBH will work collaboratively with three schools for the deaf, and an advisory group will contribute to the project. Consumers will be actively involved throughout the project, and the project will collect feedback through site visits, project meetings, and national conferences.

**ANTICIPATED PRODUCTS:** The system resulting from this project will be powerful, intuitive, and easy to learn for both adults and children. It will be the first full-featured system available to schools and will be an improvement over other nonprofessional captioning systems.

## **FIT (Full Inclusion Through Technology)**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20014

BEGINNING DATE: 1/01/93

ENDING DATE: 12/01/94

### **ABSTRACT**

**PURPOSE:** Project FIT will demonstrate, evaluate, and document innovative uses of technology under optimal conditions to improve the education of children with severe cognitive disabilities.

**METHOD:** The project will infuse technology into two settings: classrooms implementing full inclusion for students with disabilities, and student groups who are utilizing community-based instruction. Twenty-one small group studies, and multiple baseline, single-subject designs will be used to quantitatively answer these key research questions: (1) What administrative, educational, and implementation processes lead to an effective infusion of technology in the identified settings? (2) What educational benefits accrue to various students with severe disabilities and their nondisabled peers due to the infusion of technologies in the identified settings? In addition, the project will utilize selected naturalistic and participant-oriented evaluation techniques to answer qualitative aspects of research questions.

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**ANTICIPATED PRODUCTS:** Significant educational gains will be experienced by the targeted students with severe cognitive and other disabilities as well as an increased body of knowledge regarding technology utilization. The project will also utilize a variety of print and video technologies to disseminate findings in a timely manner.

**Technology Information and Education Systems (TIES)  
Project**

GRANT NUMBER: H180E30024

BEGINNING DATE: 5/01/93

ENDING DATE: 4/30/96

**ABSTRACT**

**PURPOSE:** This project will evaluate the benefits of the innovative uses of specific applications of technology to improve the education and expand the learning potential of children with disabilities under age 10, especially in the acquisition of communication and other language arts skills.

**METHOD:** In Phase I, the impact of the existing technology transfer and training system upon the integration of technology in the classroom and its effects upon the instructional needs of children will be measured and evaluated. In Phase II, factors shown to promote relevant technology transfer and training, and the selection of suitable equipment, adaptive devices, and materials for the students, will be incorporated in and offered through an enhanced system. In Phase III, project staff will document the effects of implementing this enhanced system to determine any positive outcomes for teachers and students. The areas of measurement will include student skills and competencies, the process of technology-focused decision making on the part of the teacher, and classroom management. In Phase IV, findings from the project will be disseminated throughout the country, resulting in more useful technology applications and enhanced opportunities for learning for children with disabilities.

**ANTICIPATED PRODUCTS:** Dissemination products and activities anticipated will include presentations at regional and national conferences, provision of technical assistance to facilitate replication, preparation of documents and other usable material for dissemination, and production and dissemination of instructional videotapes to show various adaptive devices and their uses.

10-1783

## Picture Reading to Promote the Literacy of Students with Moderate and Severe Disabilities

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180G20020

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** Specific project goals will include: development of materials and procedures to more effectively teach recombinative picture learning; field-testing and refining these materials and procedures based upon learning and psychosocial factors; and dissemination of the picture reading system for use in applied settings.

**METHOD:** The existing picture reading system uses 22 picture symbols to depict actions and/or locations which can be recombined with nouns (represented as pictures of objects) to form a "written instruction" format that is relatively easy to learn. The first study will involve interviews with a representative sample of individuals in various occupations to determine the types of actions most frequently used in their work, leisure, and daily living tasks. A second study will determine the relative difficulty of these actions, by testing a large number of children ages 6 through 20 who have moderate and severe intellectual disabilities. The third study will investigate the most efficient methods for teaching the response classes about the picture symbols using general case instruction technology.

**ANTICIPATED PRODUCTS:** Results of these studies will lead to the development of a replication guide that can be used to provide training in picture reading to students with moderate and severe intellectual disabilities. Results of all studies will be submitted for publication in appropriate professional journals regardless of outcomes. An initial set of 50 replication guides will be produced for distribution commercially or through a university publication. Project staff will also provide technical assistance and inservice training on request.

## Project EXALTT: Exploring the Arts and Literacy Through Technology

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180D20015

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/94

### **ABSTRACT**

**PURPOSE:** This project will develop a technology application to enhance experiences in graphic arts, music, and literacy for children with disabilities. A multimedia exploration tool (MET) will be designed to meet this need.

**METHOD:** The MET will include: (1) graphic capabilities that will extend from exploratory computer-assisted scribbling and drawing to illustrations of story lines and songs; (2) musical composition and performance capabilities from simple assembly of prestored compatible segments of melody to building harmonies and full accompaniment of selected compositions using MIDI control; (3) mixed media exploration that will include simultaneous music and graphics composition, illustrations of story lines and sound effects, and (4) documentation



and supplementary materials to facilitate the integration of the multimedia tool into existing curricula. The MET will be designed for use by preschool and school-aged children with developmental disabilities. After being developed in Year 1, the MET will be field-tested in Year 2 throughout North Carolina in typical educational settings. Ongoing evaluations will be performed in each phase of development during the beta testing, and modifications will be made to incorporate evaluation findings.

**ANTICIPATED PRODUCTS:** Information regarding the MET and research findings based upon use of it will be shared through multiple means including: (1) publication in peer-reviewed journals; (2) publication in newsletters and journals for families of children with developmental disabilities and professionals who serve them; and (3) conference presentations.

## **The Personal Communicator: Empowering Deaf Learners in Social Interactions**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180J30013

BEGINNING DATE: 8/16/93

ENDING DATE: 8/15/96

### **ABSTRACT**

**PURPOSE:** This project will enable deaf students to better communicate with their peers, teachers, and other associates, deaf or hearing, using a portable, multimedia communication device called the "personal communicator."

**METHOD:** A case study approach will be used over a 2-year period to provide an in-depth analysis of the application of the "personal communicator" on Macintosh PowerBooks and next-generation computers referred to as personal digital assistants with deaf children at elementary through secondary school levels. Videotapes of randomly selected classroom periods at 2-month intervals will be analyzed to assess the frequency and content of social interactions between deaf and hearing students and between deaf students and hearing teachers. In addition, researchers will assess attitudes toward integration of all hearing teachers and hearing classmates of deaf subjects, by randomly sampling written dialogue entries between dyad members to also assess written language competency.

**ANTICIPATED PRODUCTS:** The "personal communicator" is designed to impact deaf subjects' social interactions with hearing classmates and teachers in participating classrooms. Social integration skills learned through the use of the "personal communicator" are likely to generalize to situations outside the classroom. Teacher and student attitudes toward integration are likely to improve when deaf students demonstrate positive social interactions.

## **Development and Evaluation of a Computer-Aided Speech-to-Print Transcription System**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180J30011

BEGINNING DATE: 12/01/93

ENDING DATE: 11/30/96

### **ABSTRACT**

**PURPOSE:** This project will develop and evaluate a real-time speech-to-print transcription system that can be employed as a support system for deaf students.

**METHOD:** The proposed system will use a hearing transcriber and a computer program to convert speech into print as the words are being spoken. The system will provide a real-time text display that the student can read to understand what is being said in a classroom. In addition, the text file stored in the computer can be examined by students, tutors, and instructors by reading the computer monitor or a hard-copy printout. The system will use a laptop computer and common word processing software, as well as procedures for "compressing" or reducing the text when speech becomes rapid. Following refinement of the basic system, the package will be evaluated in the classroom through: (a) evaluation of technical performance, (b) questionnaire of users, (c) in-depth interviews, (d) study of operators' use of the system, and (e) study of the system in implementation at the secondary level. Operators and other personnel will be trained in key procedures, and operator training procedures will be refined and evaluated.

**ANTICIPATED PRODUCTS:** This project will produce a field-tested and validated system to create computerized text files of classroom speech, which will not only serve the needs of deaf and hearing-impaired students, but will also create documentation for many other uses. The system also has the potential to facilitate the communication of deaf persons in work settings and could be useful for other groups of students, such as students with learning disabilities.

## **Literacy in an Innovative, Technology-Enriched Science Context for Students with Learning Disabilities**

### **PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180H20041

BEGINNING DATE: 12/01/92

ENDING DATE: 11/30/94

### **ABSTRACT**

**PURPOSE:** This project will demonstrate the effectiveness of a literacy program in an innovative, technology-enriched science context for students with learning disabilities, and will demonstrate the effectiveness of a dissemination model for the teacher training component of the program.

**METHOD:** Sixth-grade students with learning disabilities will perform meaningful science activities to study human physiology both in a technology-equipped resource room and in the regular classroom. Pairs of regular and special education teachers will be trained in the use of the activities to achieve literacy using a "train-the-trainers" model. Selected master teachers will receive training in a basic teacher training module, to include workshops, follow-up

meetings, and on-line support, after which they will return to their districts to replicate the process using a combination of technology tools, cooperation between regular and special education teachers, cognitive strategy enrichment, and participation in a telecommunications collaboration. All told, 55 regular education and 55 special education teachers will be involved over the project's 3-year span.

**ANTICIPATED PRODUCTS:** Over the 3 project years the basic teacher training will be replicated 11 times and the master teacher training will be replicated twice. Materials to conduct these training modules will be well tested and available for future use. Other materials needed for actually running the trainings are all commercially available. Main findings will be submitted to appropriate learned journals, as well as being the subject of papers offered to appropriate conferences on the education of students with learning disabilities and annual meetings of related organizations.

### **The Efficacy of Transient Evoked Otoacoustic Emissions in Identifying Hearing Loss in Children with Developmental Disabilities**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H023C30039  
BEGINNING DATE: 9/01/93

ENDING DATE: 8/31/96

#### **ABSTRACT**

**PURPOSE:** The purpose of this project is twofold: (a) to identify hearing loss in children with already confirmed disabilities using traditional audiometric screening and assessment procedures combined with recently developed technology using Transient Evoked Otoacoustic Emissions (TEOAE) testing, and (b) to compare the sensitivity and specificity of traditional screening programs with TEOAE testing programs in a group of children without disabilities and a group of children identified as having one or more disabilities.

**METHOD:** Approximately 750 students between the ages of 5 and 7 who are currently classified with one or more disabilities will be screened for possible hearing loss using TEOAE and traditional audiometric procedures. The TEOAE testing procedure allows for a quick, noninvasive test of cochlear function without assistance from the person being evaluated and thus is expected to allow for early detection among children with developmental disabilities in particular.

**ANTICIPATED PRODUCTS:** Major products of this project will include: (1) sensitivity and specificity measures of traditional pure tone screenings as compared to TEOAE screenings; (2) a cost-effectiveness comparison of TEOAE procedures and traditional audiometric screening techniques; (3) recommendations for use of TEOAE with various degrees and types of developmental disabilities in children; (4) an analysis of demographic variables contributing to delayed identification of hearing loss among children confirmed as hearing impaired; (5) data regarding the perceived utility of TEOAE to identify children with hearing loss in school settings; and (6) a videotape and procedural manual.

## **Make it Happen! The Impact of Innovative Technologies to Support Inquiry-Based Instruction on Adolescents with Disabilities**

**PRINCIPAL INVESTIGATOR:**

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GRANT NUMBER: H180E20011

BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/95

### **ABSTRACT**

**PURPOSE:** The goal of this project is to rigorously evaluate the impact of innovative technologies on students with learning and emotional disturbance disabilities under optimal teaching and learning conditions.

**METHOD:** Using both qualitative and quantitative methods, teacher and student implementation of the curriculum unit design and student growth will be measured to include: (1) demonstration of inquiry-based learning skills and processes; (2) acquisition of knowledge, and (3) enhanced motivation and self-esteem. The specific objective is to design a seamless integrated software environment to include: (1) applications for gathering, manipulating and representing information; (2) a procedural facilitation for students to use these applications; and (3) tools for teacher planning, teaching, and student assessment.

**ANTICIPATED PRODUCTS:** The following outcomes are expected: (1) findings on the effective use of innovative technologies and active teaching practices to support inquiry-based learning for students with disabilities; (2) tools to assess growth in inquiry-based learning, on and off the computer; (3) technology-based procedural facilitation tools for teachers and students that support inquiry-based learning; (4) concrete examples in written and video formats of technology-supported, inquiry-based instruction for students with disabilities and (5) specific procedures and guidelines for implementation of the innovations in other settings.

**Practice Improvement Center on the Effective and Efficient Use of Technology, Media, and Materials in the Provision of Education and Related Services to Children and Youth with Disabilities**

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GRANTNUMBER: H180N20013  
BEGINNING DATE: 10/01/92

ENDING DATE: 9/30/97

**ABSTRACT**

**PURPOSE:** This project has two goals: (1) to collect, analyze, validate, and extend extant research regarding effective and efficient use of technology, media, and materials (TMM) to improve outcomes for children and youth with disabilities, and (2) to provide access to research and promote its use by practitioners so that they may better meet the educational and related service needs of children and youth with disabilities.

**METHOD:** A Delphi method will be employed with key stakeholders from each of several disability groups to identify priorities for that group. Based on these findings, staff will select topics for review and dissemination and revise the strategic plan accordingly. For each topic identified, research leaders, with input from others in their area of expertise, will synthesize extant research literature. Based on the strength and consistency of research findings, project staff will carry out one or more follow-up activities to validate and extend the findings. Among follow-up methods to be employed will be telephone surveys, focus group sessions, on-site field visits, videoconferences with facilitated discussion at designated download sites, and commissioned research that extends ongoing research efforts.

**ANTICIPATED PRODUCTS:** Formats for dissemination efforts will include: (1) research briefs; (2) training manuals; (3) videotapes with accompanying print materials; (4) an on-line multimedia magazine containing text, still pictures, sound, and video; (5) videoconferences broadcast via PBS stations across the country; (6) tapes of teleconferences with accompanying facilitator's guides; and (7) electronic bulletin board discussions.

# ***APPENDICES***

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